



(12) **United States Patent**
Franzas et al.

(10) **Patent No.:** **US 9,308,454 B2**
(45) **Date of Patent:** **Apr. 12, 2016**

(54) **ELECTRONIC DEVICE FOR FACILITATING
USER INTERACTIONS WITH GRAPHICAL
USER INTERFACE**

(71) Applicant: **Supercell Oy**, Helsinki (FI)

(72) Inventors: **Jon Franzas**, Helsinki (FI); **Timur
Haussila**, Helsinki (FI); **Touko
Tahkokallio**, Espoo (FI)

(73) Assignee: **Supercell OY**, Helsinki (FI)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/493,245**

(22) Filed: **Sep. 22, 2014**

(65) **Prior Publication Data**

US 2015/0105151 A1 Apr. 16, 2015

Related U.S. Application Data

(63) Continuation of application No. 14/052,076, filed on
Oct. 11, 2013.

(51) **Int. Cl.**
A63F 9/24 (2006.01)
A63F 13/42 (2014.01)
(Continued)

(52) **U.S. Cl.**
CPC **A63F 13/42** (2014.09); **A63F 13/30**
(2014.09); **A63F 13/40** (2014.09); **A63F 13/45**
(2014.09); **A63F 13/537** (2014.09); **A63F**
13/822 (2014.09); **A63F 13/833** (2014.09);
A63F 13/837 (2014.09); **G06F 17/30061**
(2013.01); **H04L 41/22** (2013.01); **A63F**
2300/807 (2013.01)

(58) **Field of Classification Search**

None

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

8,448,095 B1 5/2013 Haussila et al.
2002/0060427 A1* 5/2002 Hinami A63F 13/10
273/237

(Continued)

FOREIGN PATENT DOCUMENTS

JP 2002000939 A 1/2002
JP 2006318392 A 11/2006

(Continued)

OTHER PUBLICATIONS

Civilization Fanatics, Civ5—Mod Components, <http://forums.civfanatics.com/showthread.php?t=428484>, Jun. 25, 2011.*

(Continued)

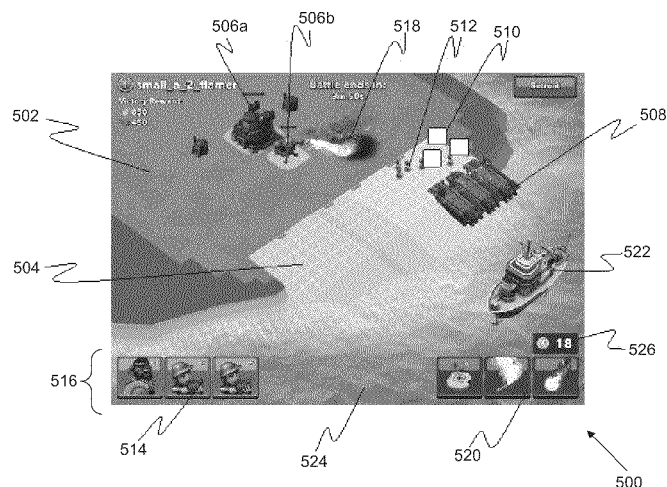
Primary Examiner — Jason Yen

(74) *Attorney, Agent, or Firm* — Ziegler IP Law Group, LLC

(57) **ABSTRACT**

Execution of a software product in an electronic device providing a war strategy game provides a rendering of a map including a landing area and enemy territory, a first set of selectable graphical objects including selectable troop transportation units, detection of a selection of a troop transportation unit and deployment point on the landing area; and execution of a rendering of the selected troop transportation unit to a free space on the landing area in proximity of the deployment point. A troop is moved from the selected troop transportation unit along a route towards the enemy territory. A second set of selectable graphical objects including flash fire devices is rendered. Selection of a flash fire device and fire point in the enemy territory is detected. Operation of the flash fire device on the fire point is executed and the troop is moved towards the fire point.

26 Claims, 15 Drawing Sheets



(51) **Int. Cl.**

A63F 13/537 (2014.01)
A63F 13/822 (2014.01)
G06F 17/30 (2006.01)
H04L 12/24 (2006.01)
A63F 13/837 (2014.01)
A63F 13/40 (2014.01)
A63F 13/833 (2014.01)
A63F 13/45 (2014.01)
A63F 13/30 (2014.01)

(56)

References Cited

U.S. PATENT DOCUMENTS

2003/0008696	A1 *	1/2003	Abecassis	A63F 13/10
				463/9
2004/0048643	A1 *	3/2004	Lauter	463/1
2005/0037826	A1 *	2/2005	Rupert	A63F 13/005
				463/4
2006/0267955	A1	11/2006	Hino	
2007/0270226	A1 *	11/2007	York et al.	463/43
2012/0142429	A1	6/2012	Muller	

FOREIGN PATENT DOCUMENTS

KR	10-2008-0080657	9/2008
WO	2007072019	6/2007
WO	2007072019 A2	6/2007

OTHER PUBLICATIONS

Big Phil, Six Tips on Crushing Your Enemies in Civilization V, <http://www.escapistmagazine.com/forums/read/6.246477-Six-Tips-on-Crushing-Your-Enemies-in-Civilization-V>, Nov. 23, 2010.*

Wikia, C-evo HOWTO: Units, http://civilization.wikia.com/wiki/C-evo_HOWTO:_Units, May 12, 2012.*

NorthStarGuide, Civilization V Battle Tactics, <http://blog.gameagent.com/the-art-of-war-from-a-us-marine-civilization-v-battle-tactics-part-2/>, May 13, 2011.*

Civilization Fanatics Center, Civilization IV: Units, <http://www.civfanatics.com/civ4/info/units>, Jan. 25, 2007.*

Civilization Revolution, Units, <http://www.civilizationrevolution.com/iphone/manual/units.html>, 2009.*

"Battle Countries-Improved", Sony Computer Entertainment Inc., Sep. 18, 1998, pp. 4-6, 16, 26-28, 33-34, 51, 60-62, 66, 74-76, 80.

"Age of Mythology, Giant Gods in Atlaitis", Game Watch, Impress Inc., Nov. 28, 2003 URL <http://game.watch.impress.co.jp/docs/20031128/aomtt.htm>.

Korean Intellectual Property Office Notice of Non-Final Rejection for App No. 10-2014-0089905, May 27, 2015, 4 pages.

Notice of Non-Final Rejection, Korean Intellectual Property Office, Application No. 10-2014-0089905, Dated May 27, 2015.

* cited by examiner

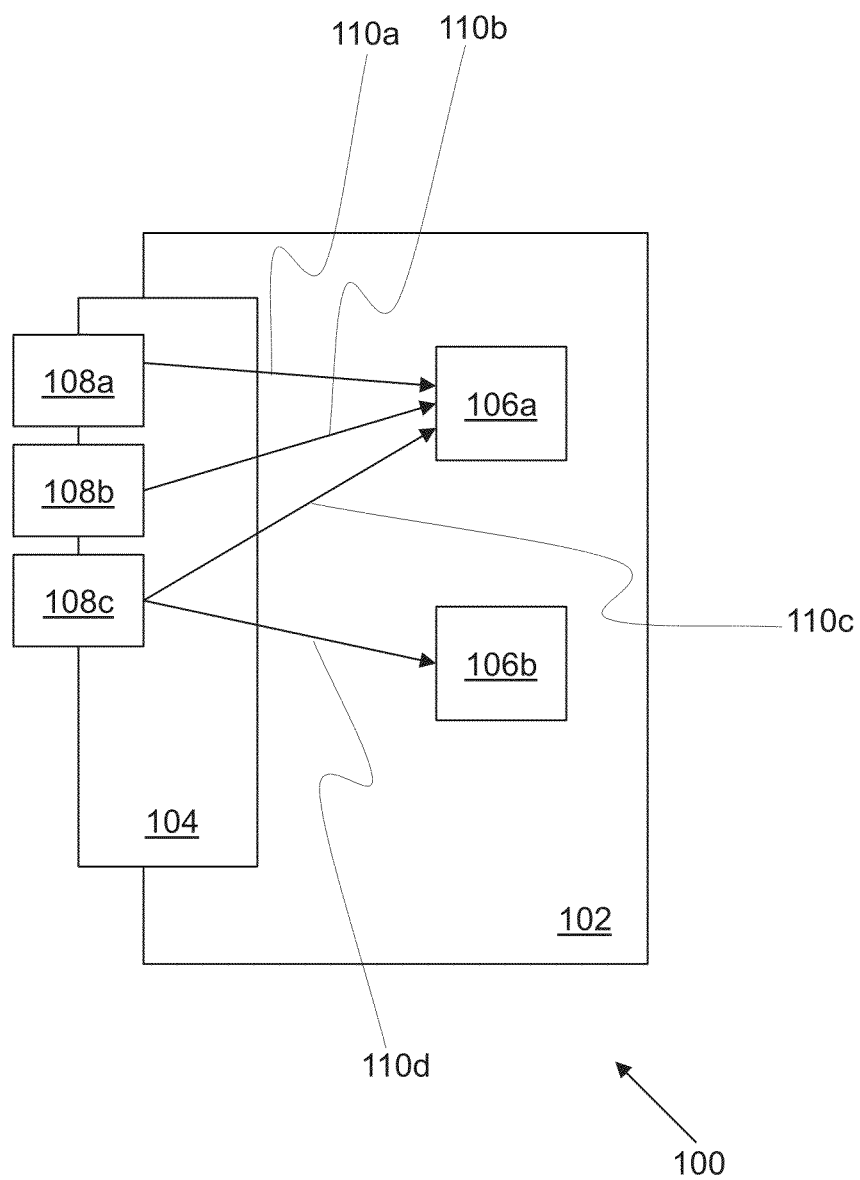


Fig. 1 (Prior Art)

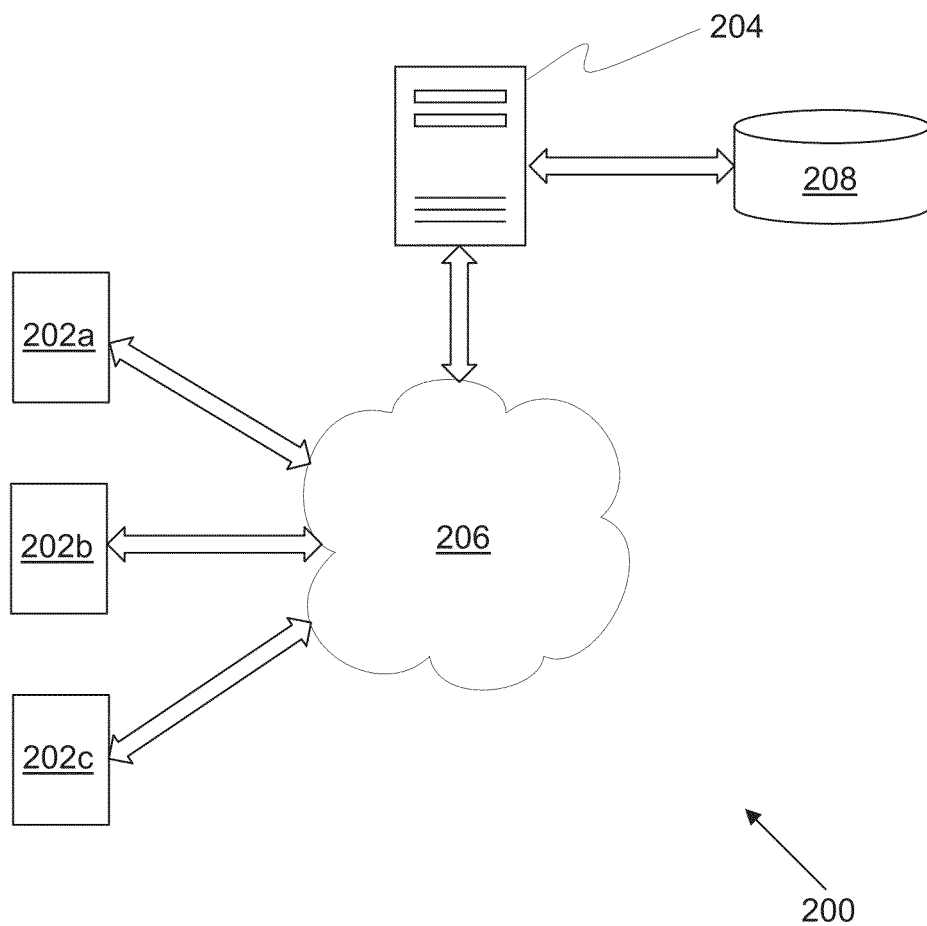


Fig. 2

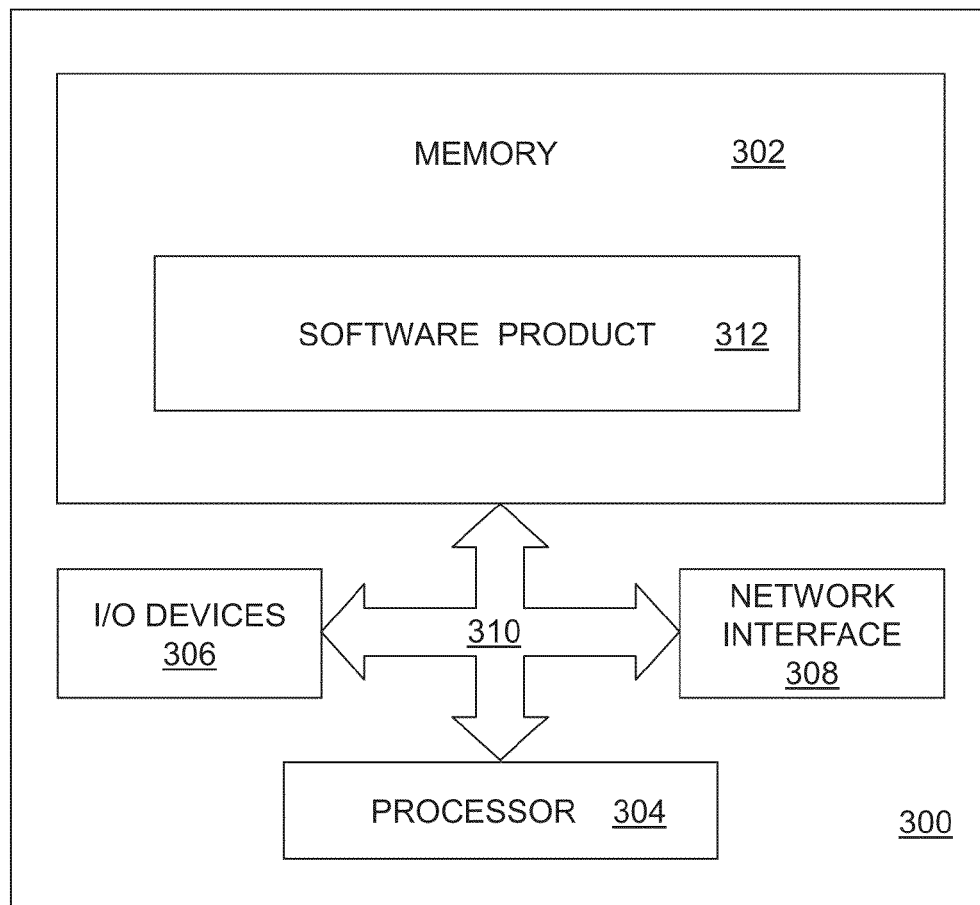


Fig. 3

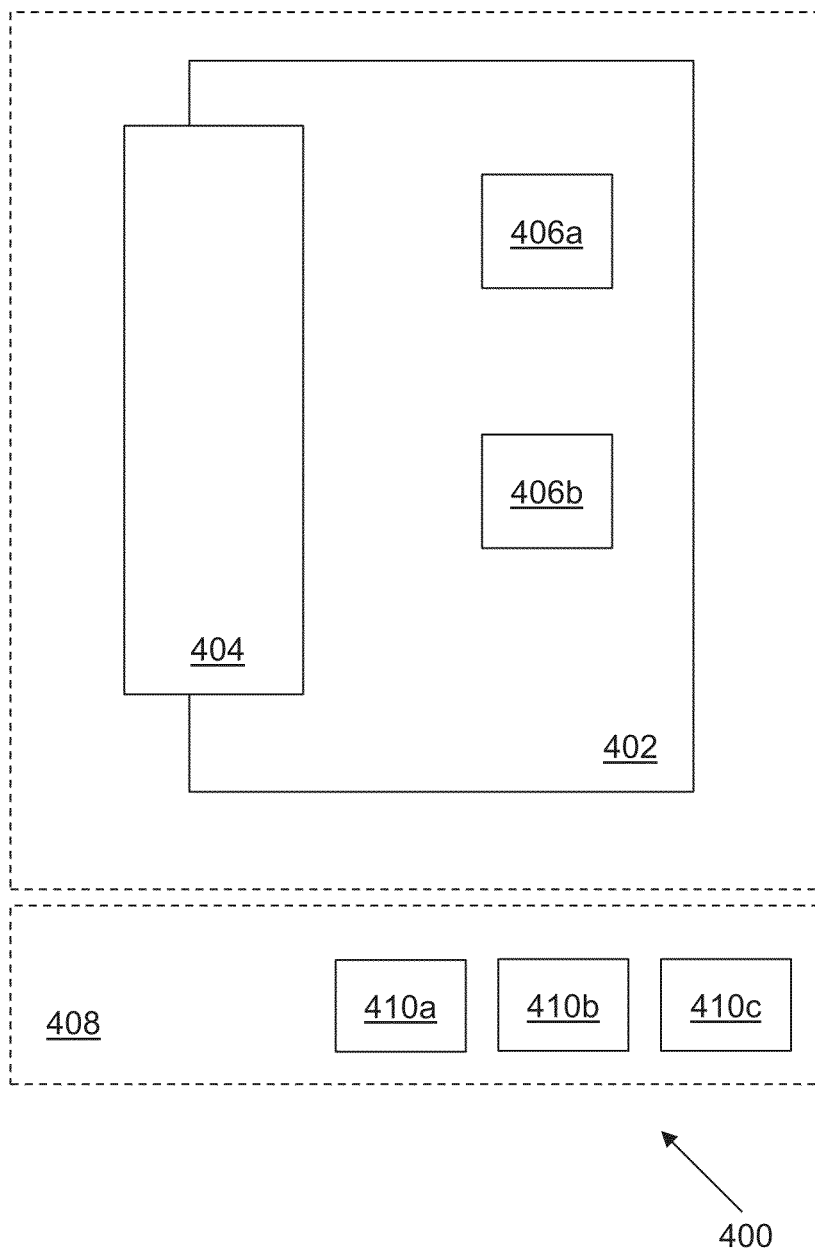


Fig. 4A

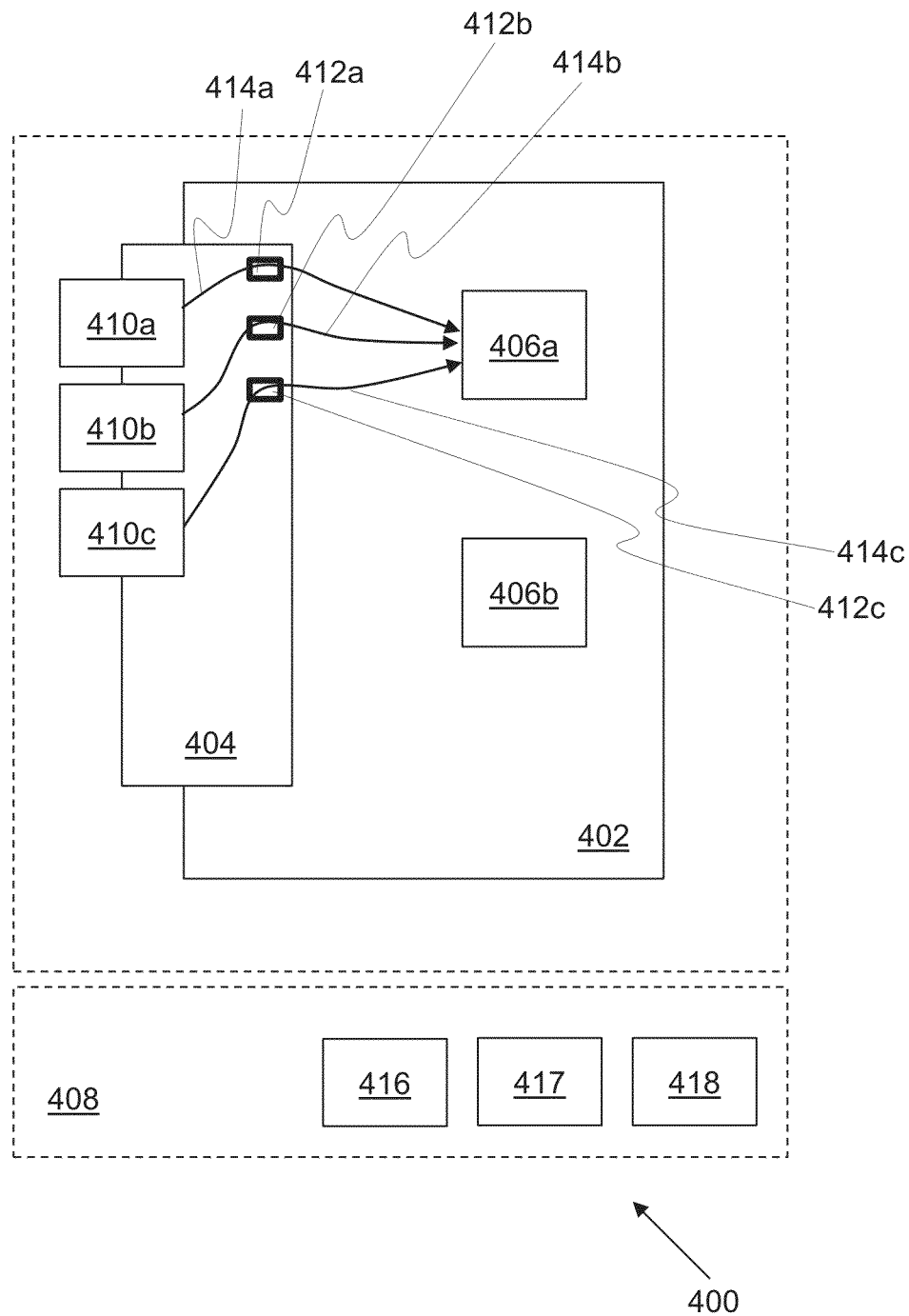


Fig. 4B

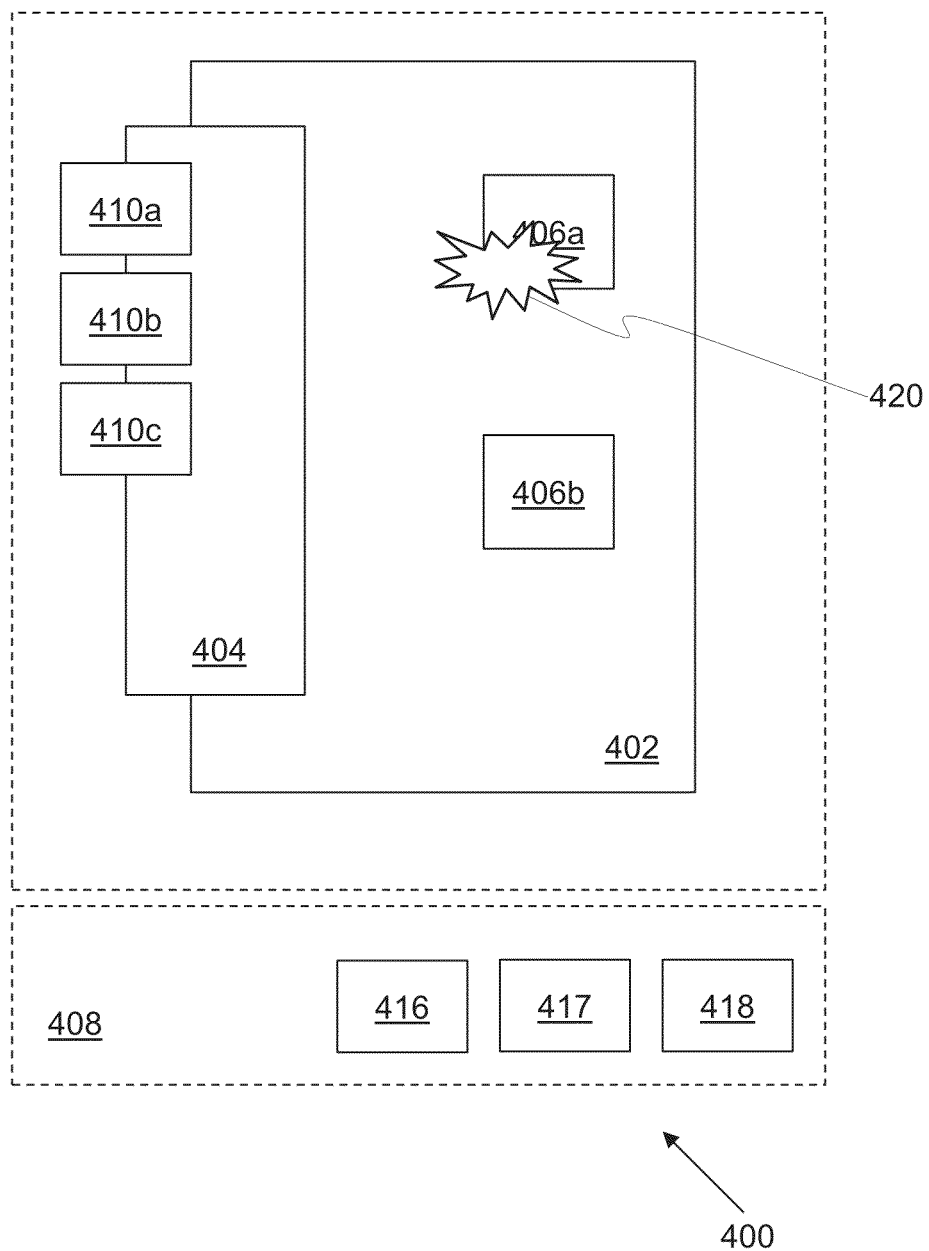


Fig. 4C

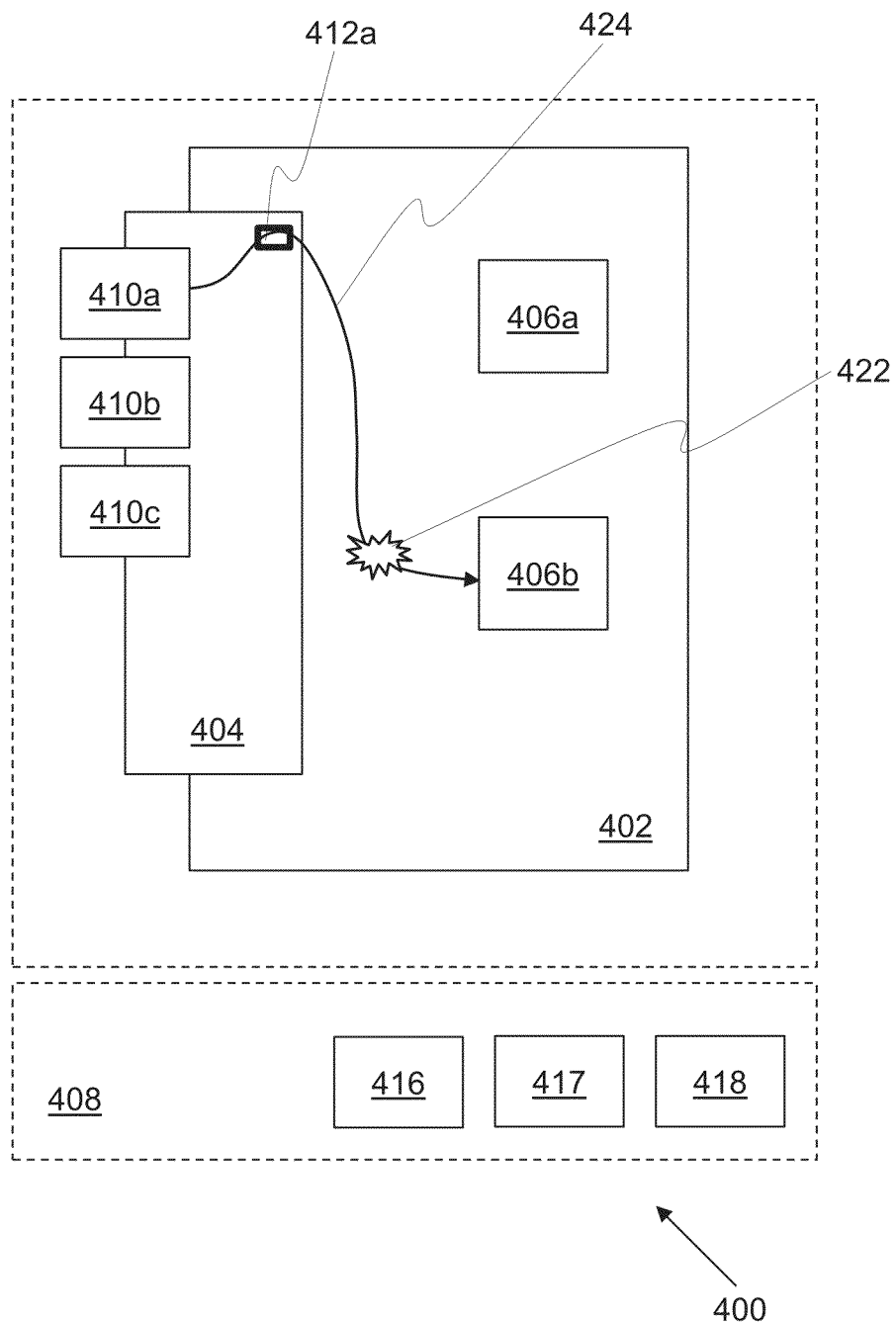
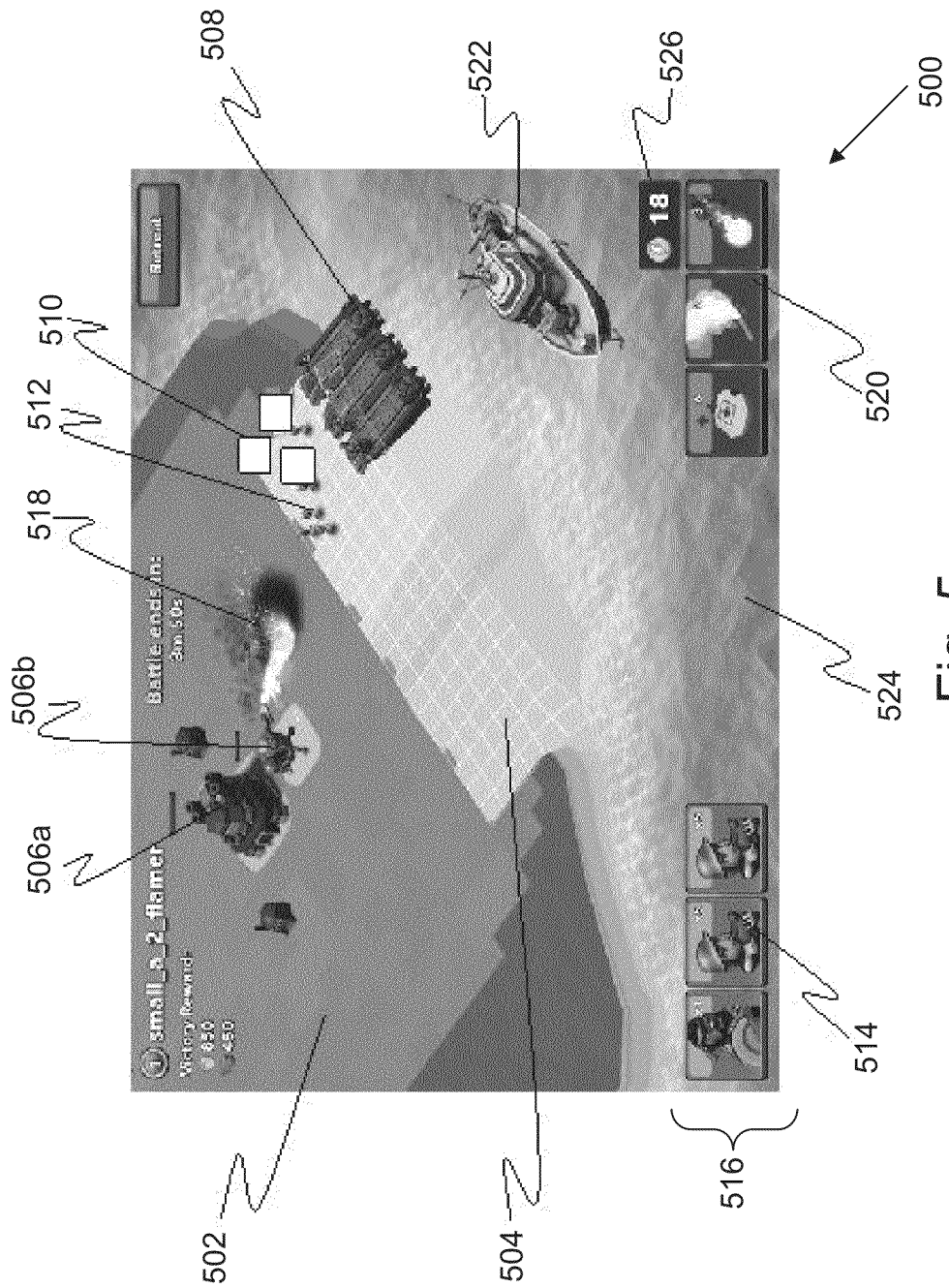
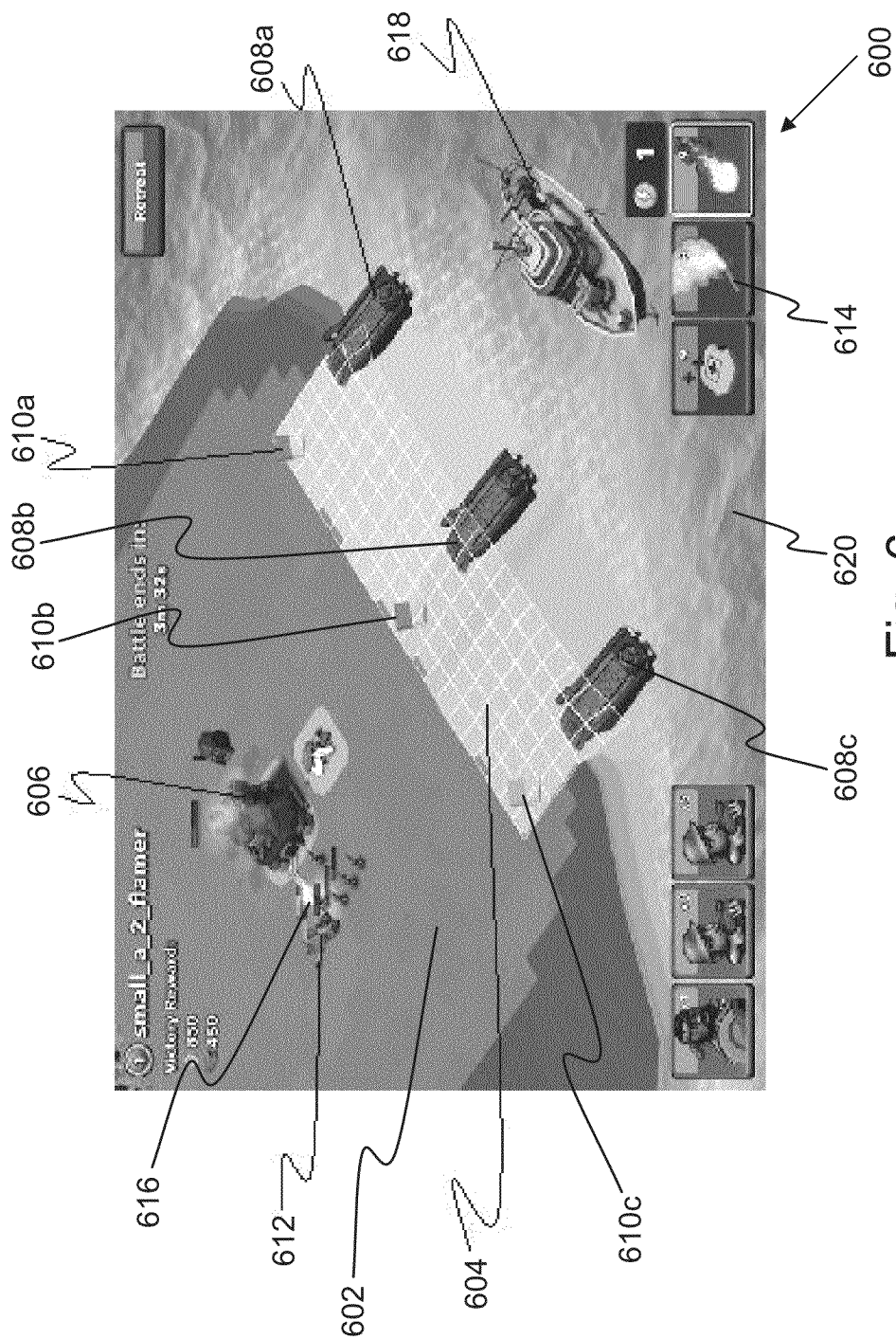


Fig. 4D



59



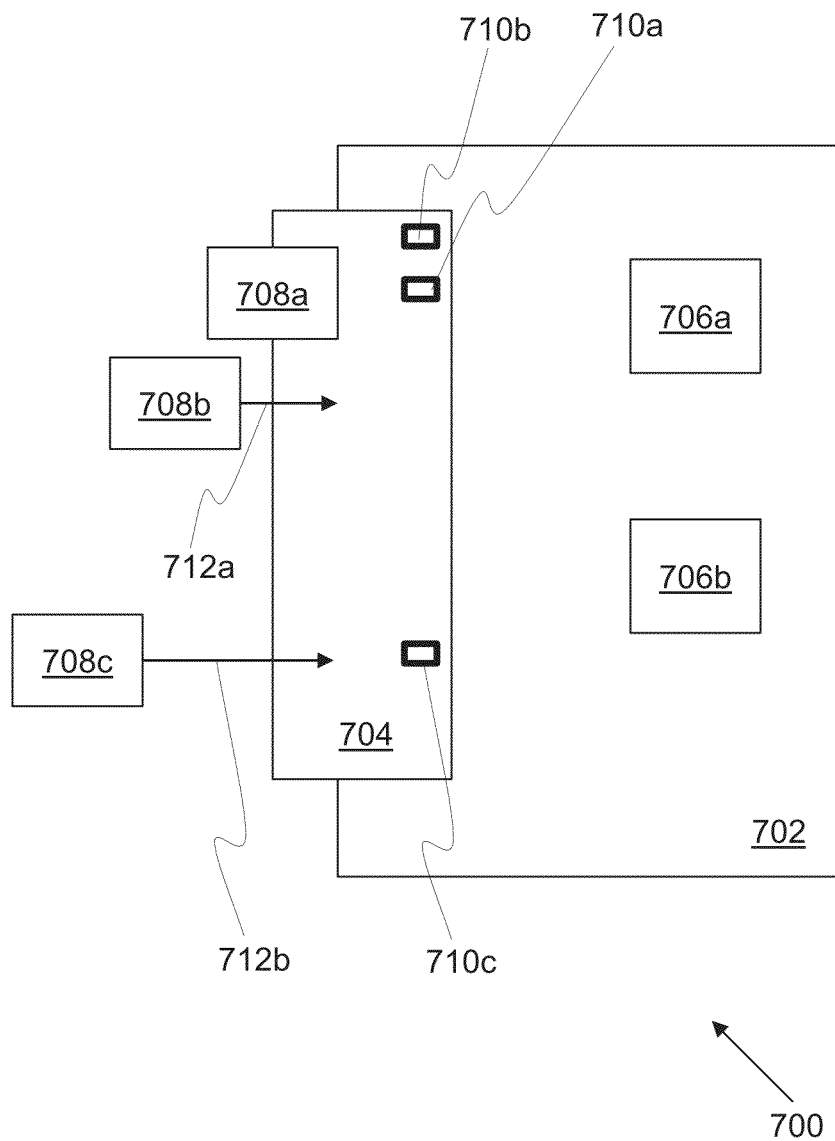


Fig. 7

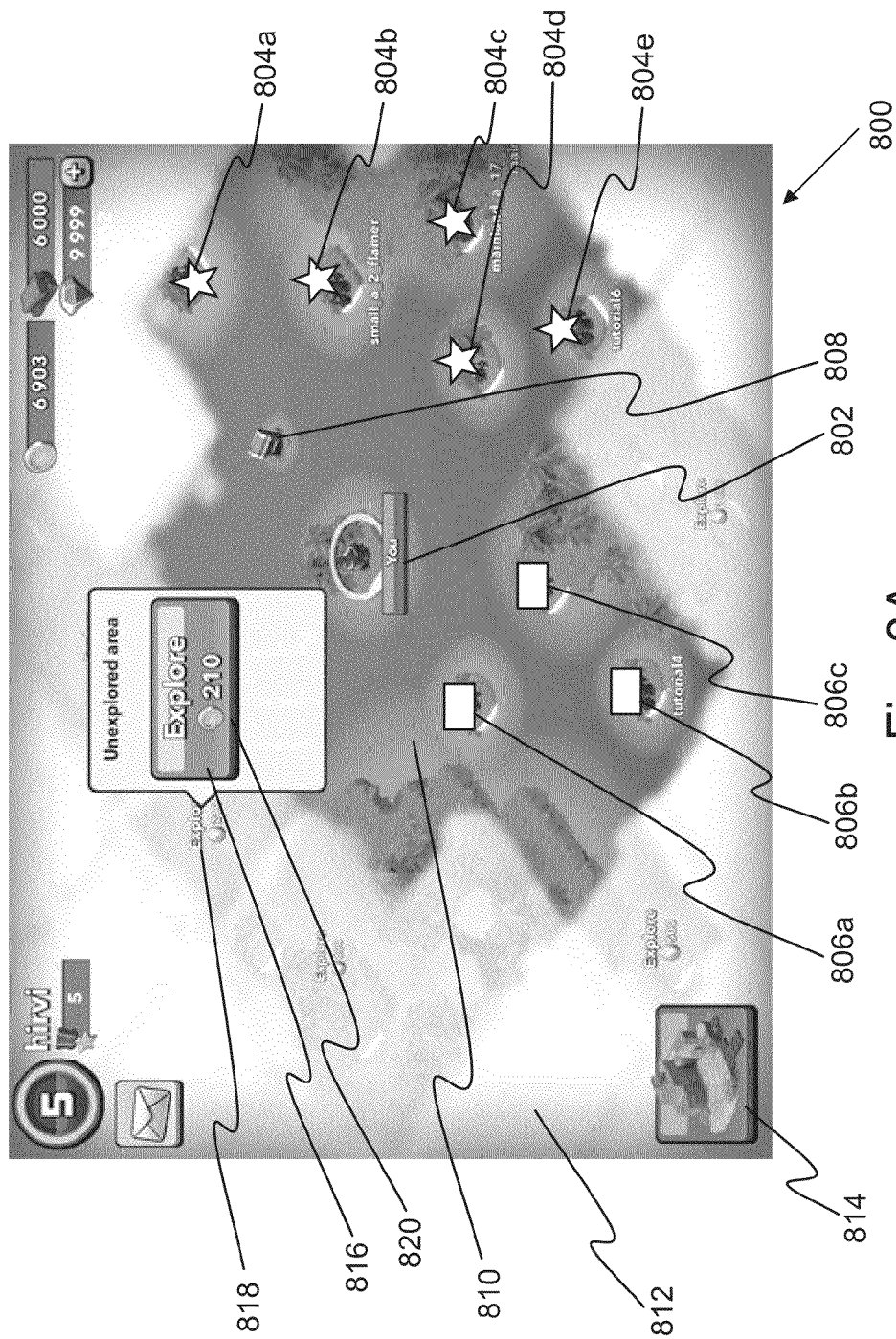


Fig. 8A

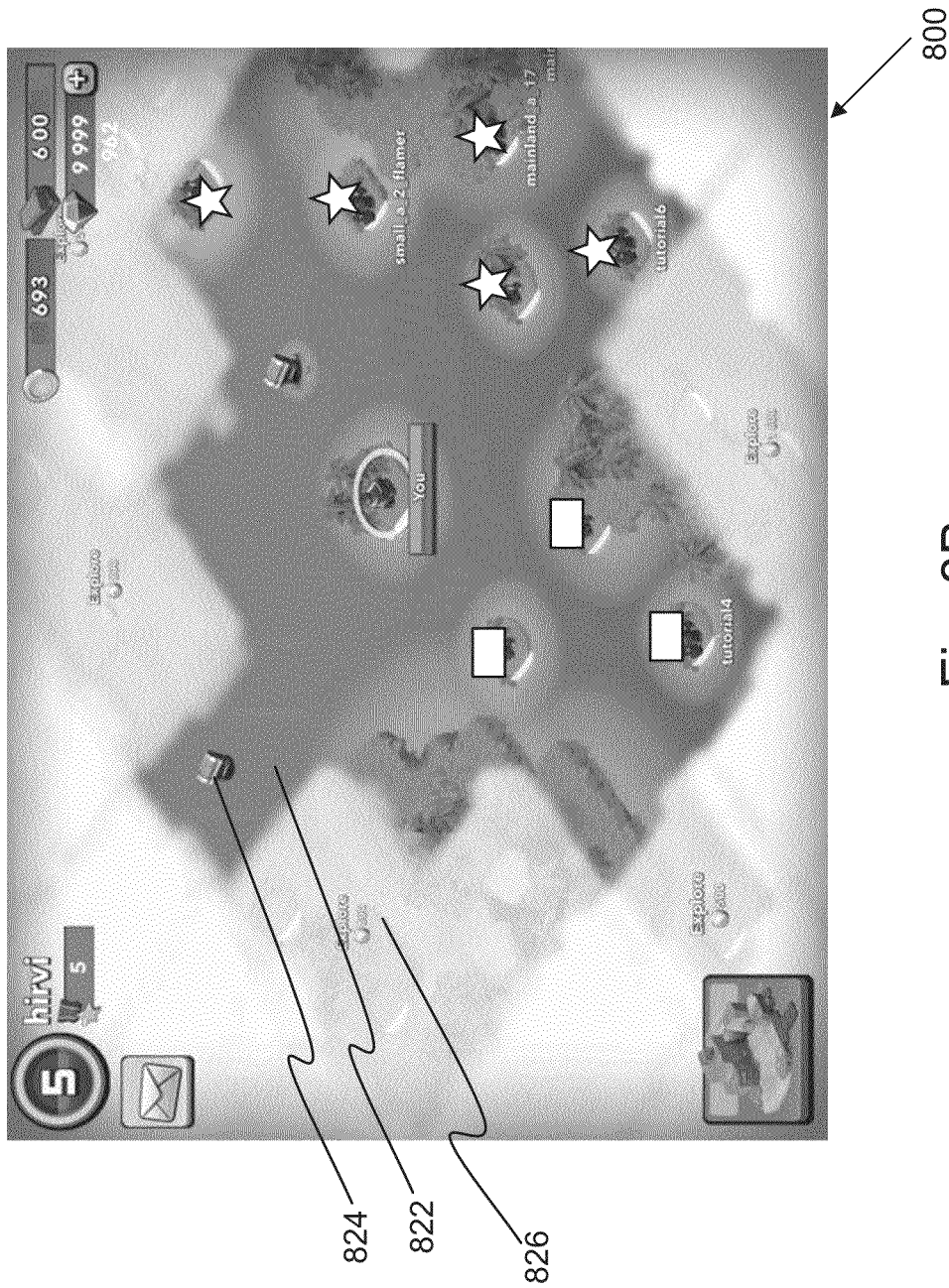


Fig. 8B

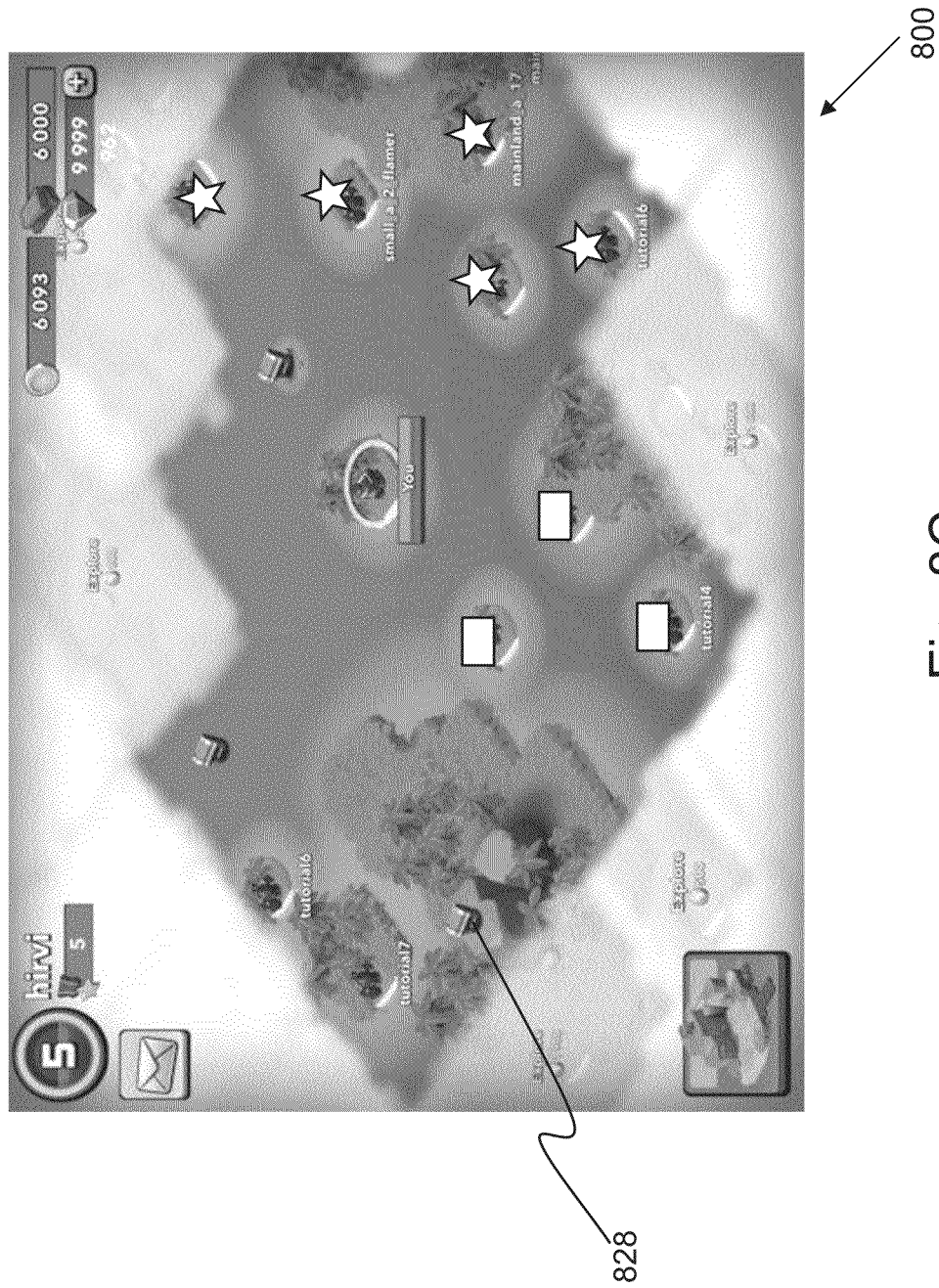


Fig. 8C

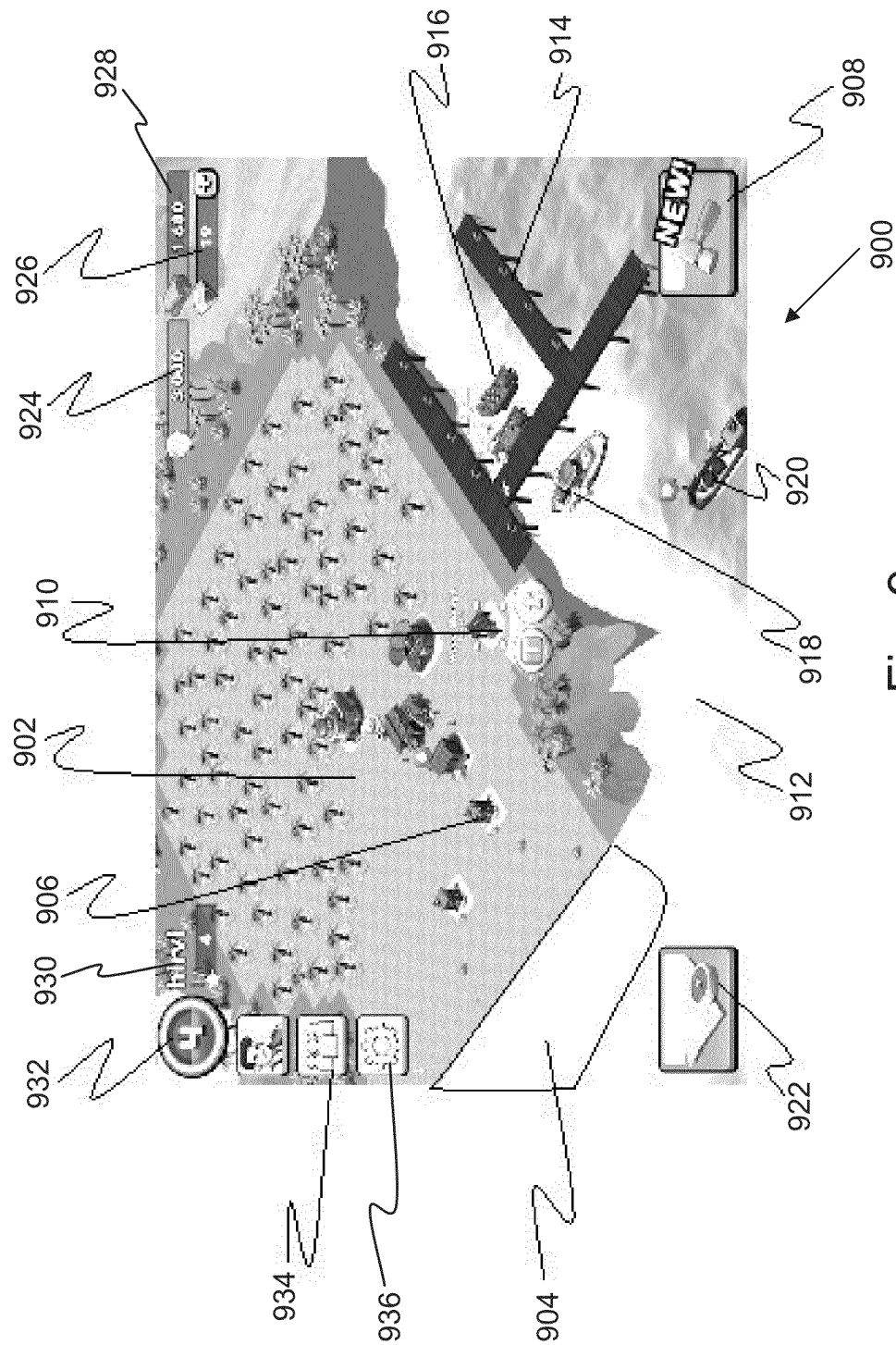


Fig. 9

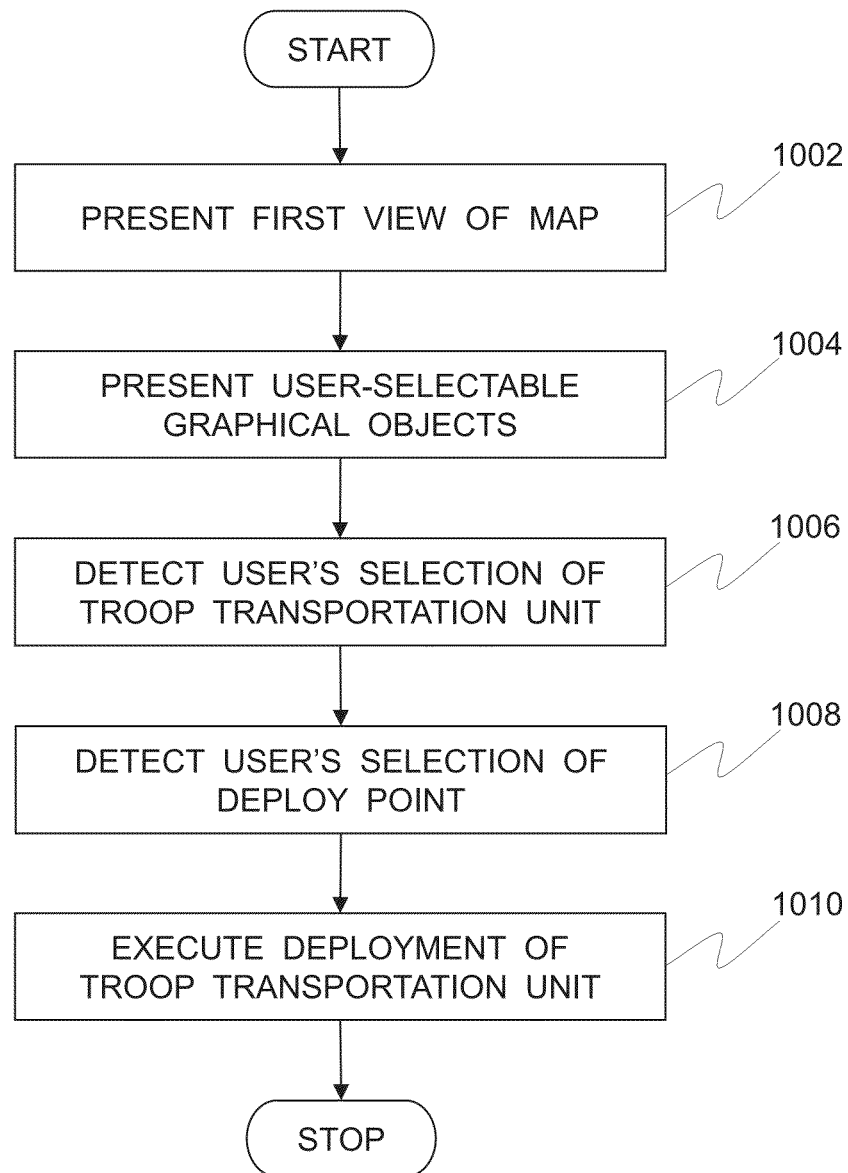


Fig. 10

1

ELECTRONIC DEVICE FOR FACILITATING USER INTERACTIONS WITH GRAPHICAL USER INTERFACE

TECHNICAL FIELD

The present disclosure relates generally to gaming systems, and more specifically, to electronic devices for facilitating user interactions with a graphical user interface. Moreover, the present disclosure relates to methods of facilitating user interactions with a graphical user interface. Furthermore, the present disclosure also relates to software products stored on non-transitory (non-transient) machine-readable data storage media, wherein the software products are executable upon computing hardware of an electronic device to implement the aforesaid methods.

BACKGROUND

Today, various electronic devices have been developed to provide user-friendly interfaces for facilitating easy and quick user interaction. Examples of such electronic devices include, but are not limited to, smart phones, Mobile Internet Devices (MIDs), phablet computers, tablet computers, Ultra-Mobile Personal Computers (UMPCs), Personal Digital Assistants (PDAs), web pads, handheld Personal Computers (PCs), laptop computers, interactive entertainment computers, and gaming terminals. Most of these electronic devices include touch-sensitive display screens, which make them more user-friendly and easier to use.

In order to provide entertaining experience to users, various gaming systems may be implemented on such electronic devices. An important aspect of a gaming system implemented on an electronic device is an ease with which a user can interact with a user interface of a game to control various operations of the game.

FIG. 1 is a schematic illustration of a known conventional user interface of an example gaming system for implementation on an electronic device; FIG. 1 represents prior art. The example gaming system includes a war strategy game in which a user's purpose is to build and expand his/her territory, for example, by attacking one or more territories owned by other users or simulated opponents.

FIG. 1 depicts an example game view 100 of the example gaming system. The example game view 100 shows an enemy territory being attacked by the user. The enemy territory includes a land region 102 and a shore region 104. A plurality of target objects, depicted as a target object 106a and a target object 106b in FIG. 1, are positioned in the land region 102. The user is typically required to destroy the target objects 106a and 106b to defeat his/her enemy.

In order to attack the target objects 106a and 106b, the user deploys a plurality of war-ships on the shore region 104, depicted as a war-ship 108a, a war-ship 108b and a war-ship 108c in FIG. 1 (hereinafter collectively referred to as war-ships 108).

Typically, the user may deploy the war-ships 108 by selecting a desired place on the shore region 104, for example, by tapping with a finger or clicking with a pointer object. In an example situation where the user wishes to attack on the target object 106a, before attacking the target object 106b, the user deploys the war-ships 108 as close to the target region 106a as is possible. The war-ships 108 may typically be deployed beside each other.

Consequently, troops emerging from the war-ships 108a and 108b enter the enemy territory via target routes 110a and

2

110b, respectively, as shown in FIG. 1. These troops attack on the target object 106a, as the user desired.

However, space available on the shore region 104 is often limited. In a situation where the war-ship 108c is deployed after the war-ships 108a and 108b have been deployed, the war-ship 108c is forced to be deployed in a proximity of the target object 106b, as shown in FIG. 1. The war-ship 108c may, for example, be deployed in a place from where both the targets 106a and 106b are substantially equally distant.

Consequently, troops emerging from the war-ship 108c have two possible target routes, depicted as target routes 110c and 110d. The target route 110c leads the troops to the target object 106a, while the target route 110d leads the troops to the target object 106b. As the troops select a shortest target route from amongst the target routes 110c and 110d automatically, it is not possible for the user to select a route from which the user would want the troops to enter. In a situation where the target route 110d is the shortest target route, the troops emerging from the war-ship 108c attack the target object 106b, instead of the target object 106a. This makes it impossible for the user to control deployment of these troops. As a result, the user may find it difficult to define a war strategy as per his/her desire.

Therefore, there exists a need for a graphical user interface that enables a user to define a strategy as per his/her desire.

SUMMARY

The present disclosure seeks to provide an electronic device.

The present disclosure also seeks to provide a method of facilitating user interactions with a graphical user interface.

In one aspect, embodiments of the present disclosure provide an electronic device. The electronic device includes a display screen and a computing hardware. The computing hardware is operable to execute a software product, which results in generating and rendering a graphical user interface on the display screen. The graphical user interface is configured to facilitate user interactions. The computing hardware, the software product and the graphical user interface are implemented on a gaming system. In an embodiment of the present disclosure, the gaming system includes a war strategy game.

The software product, when executed on the computing hardware, is configured to present a first view of a map on the graphical user interface. The first view of the map displays an enemy territory. The software product, when executed on the computing hardware, is also configured to present one or more user-selectable graphical objects on the graphical user interface. The one or more user-selectable graphical objects may, for example, include one or more troop transportation units.

Additionally, the software product, when executed on the computing hardware, is configured to detect a user's selection of one of the one or more troop transportation units to be deployed to attack the enemy territory, and detect a user's selection of a deploy point on the enemy territory. The software product, when executed on the computing hardware, is configured to execute deployment of the one of the one or more troop transportation units on the enemy territory, upon detection of the user's selections. Consequently, troops emerging from the one of the one or more troop transportation units enter the enemy territory from one or more areas in a proximity of the deploy point.

Apart from the one or more troop transportation units, the one or more user-selectable graphical objects may also include one or more supplemental fires. The software product

3

uct, when executed on the computing hardware, is optionally configured to detect a user's selection of one of the one or more supplemental fires to be fired, and detect a user's selection of a fire point on the enemy territory. Accordingly, the software product, when executed on the computing hardware, is optionally configured to execute firing of the one of the one or more supplemental fires on the fire point selected on the enemy territory, upon detection of the user's selections.

In an embodiment of the present disclosure, the one of the one or more supplemental fires is a flash fire that, when fired, re-directs the troops to pass through one or more areas in a proximity of the fire point.

Moreover, the software product, when executed on the computing hardware, is optionally configured to levy a cost of usage of the one of the one or more supplemental fires. Optionally, the cost of usage may be substantially different for each usage of the one of the one or more supplemental fires. In an embodiment of the present disclosure, the cost of usage increases with each usage of the one of the one or more supplemental fires. In another embodiment of the present disclosure, the cost of usage increases after the one of the one or more supplemental fires has been used a predefined number of times.

Moreover, the software product, when executed on the computing hardware, is configured to present a second view of the map on the graphical user interface. The second view of the map displays one or more user-owned territories and one or more enemy territories. Accordingly, the software product, when executed on the computing hardware, is configured to enable a user's selection of one of the one or more enemy territories to be attacked.

The second view of the map optionally includes one or more visible areas and one or more at-least-partially-hidden areas. In such a situation, the software product, when executed on the computing hardware, is optionally configured to present a user-selectable map-resource object on the graphical user interface, detect a user's selection of the user-selectable map-resource object, and present a third view of the map on the graphical user interface. Based at least partially upon the user's selection of the user-selectable map-resource object, at least one of the one or more at-least-partially-hidden areas of the second view of the map is made visible on the third view of the map.

In an example embodiment of the present disclosure, the user-selectable map-resource object includes a radar. Accordingly, the software product, when executed on the computing hardware, is optionally configured to present a user-selectable upgrade option on the graphical user interface, and detect a user's selection of the user-selectable upgrade option. The software product, when executed on the computing hardware, is optionally configured to upgrade the user-selectable map-resource object, based at least partially upon the user's selection of the user-selectable upgrade option. Consequently, the at least one of the one or more at-least-partially-hidden areas is made visible when the user-selectable map-resource object is upgraded.

The software product, when executed on the computing hardware, is optionally configured to levy a cost of usage of the user-selectable map-resource object.

In order to detect user's selections, the electronic device also includes a user input interface rendered over the graphical user interface. The user input interface is configured to detect an input corresponding to moving a pointer object, clicking or tapping the pointer object, or swiping a touch-sensitive object over the graphical user interface.

Moreover, the electronic device optionally includes a database for substantially continuously recording and updating

4

changes in status of the one or more user-selectable graphical objects. The software product, when executed on the computing hardware, is coupled to the database. The software product, when executed on the computing hardware, is optionally configured to resume the status of the one or more user-selectable graphical objects to their last updated status in the database, in case of interruptions in the operable state of the graphical user interface.

In an embodiment of the present disclosure, a plurality of electronic devices are coupled in communication with a server via a communication network. Graphical user interfaces are generated temporally concurrently on display screens of the plurality of electronic devices, to facilitate interactions of a plurality of users with the graphical user interfaces. Beneficially, the graphical user interfaces generated on the plurality of electronic devices are coordinated and synchronized through the server, and updated on the plurality of electronic devices concurrently with time.

Examples of these electronic devices include, but are not limited to, mobile phones, smart telephones, Mobile Internet Devices (MIDs), tablet computers, Ultra-Mobile Personal Computers (UMPCs), phablet computers, Personal Digital Assistants (PDAs), web pads, Personal Computers (PCs), Handheld PCs, laptop computers, desktop computers, Network-Attached Storage (NAS) devices, large-sized touch screens with embedded PCs, and interactive entertainment devices, such as game consoles, Television (TV) sets and Set-Top Boxes (STBs).

In another aspect, embodiments of the present disclosure provide a method of facilitating user interactions with the graphical user interface.

In yet another aspect, embodiments of the present disclosure provide a software product stored on non-transitory (non-transient) machine-readable data storage media, wherein the software product is executable upon computing hardware of the electronic device for implementing the aforementioned method. The software product may, for example, be downloadable from a software application store to the electronic device.

Embodiments of the present disclosure substantially eliminate, or at least partially address, the aforementioned problems in the prior art, and enable users to control deployment of troops, thereby enabling the users to define a war strategy as per their desire.

Additional aspects, advantages, features and objects of the present disclosure would be made apparent from the drawings and the detailed description of the illustrative embodiments construed in conjunction with the appended claims that follow.

It will be appreciated that features of the present disclosure are susceptible to being combined in various combinations without departing from the scope of the present disclosure as defined by the appended claims.

DESCRIPTION OF THE DRAWINGS

The summary above, as well as the following detailed description of illustrative embodiments, is better understood when read in conjunction with the appended drawings. For the purpose of illustrating the present disclosure, exemplary constructions of the disclosure are shown in the drawings. However, the present disclosure is not limited to specific methods and instrumentalities disclosed herein. Moreover, those in the art will understand that the drawings are not to scale. Wherever possible, like elements have been indicated by identical numbers.

5

Embodiments of the present disclosure will now be described, by way of example only, with reference to the following diagrams wherein:

FIG. 1 is a schematic illustration of a known conventional user interface of an example gaming system for implementation on an electronic device;

FIG. 2 is a schematic illustration of an example network environment that is suitable for practicing embodiments of the present disclosure;

FIG. 3 is a schematic illustration of various components of an electronic device, in accordance with an embodiment of the present disclosure;

FIGS. 4A, 4B, 4C and 4D are illustrations of an example game view of a gaming system, in accordance with an embodiment of the present disclosure;

FIG. 5 is an illustration of an example screenshot of a game view of the gaming system, in accordance with an embodiment of the present disclosure;

FIG. 6 is an illustration of another example screenshot of the game view of the gaming system, in accordance with an embodiment of the present disclosure;

FIG. 7 is an illustration of an example game view of the gaming system, in accordance with an embodiment of the present disclosure;

FIGS. 8A, 8B and 8C are illustrations of another example game view of the gaming system, in accordance with an embodiment of the present disclosure;

FIG. 9 is an illustration of yet another example game view of the gaming system, in accordance with an embodiment of the present disclosure; and

FIG. 10 is an illustration of steps of a method of facilitating user interactions with a graphical user interface, in accordance with an embodiment of the present disclosure.

In the accompanying drawings, an underlined number is employed to represent an item over which the underlined number is positioned or an item to which the underlined number is adjacent. A non-underlined number relates to an item identified by a line linking the non-underlined number to the item. When a number is non-underlined and accompanied by an associated arrow, the non-underlined number is used to identify a general item at which the arrow is pointing.

DETAILED DESCRIPTION OF EMBODIMENTS

The following detailed description illustrates embodiments of the present disclosure and ways in which they can be implemented. Although the best mode of carrying out the present disclosure has been disclosed, those skilled in the art would recognize that other embodiments for carrying out or practicing the present disclosure are also possible.

Embodiments of the present disclosure provide an electronic device for facilitating a gaming environment. The electronic device includes a display screen and a computing hardware. The computing hardware is operable to execute a software product, which results in generating and rendering a graphical user interface on the display screen. The graphical user interface is configured to facilitate user interactions. The computing hardware, the software product and the graphical user interface are implemented on a gaming system. In an embodiment of the present disclosure, the gaming system includes a war strategy game.

The software product, when executed on the computing hardware, is configured to present a first view of a map on the graphical user interface. The first view of the map displays an enemy territory. The software product, when executed on the computing hardware, is also configured to present one or more user-selectable graphical objects on the graphical user

6

interface. The one or more user-selectable graphical objects may, for example, include one or more troop transportation units.

Additionally, the software product, when executed on the computing hardware, is configured to detect a user's selection of one of the one or more troop transportation units to be deployed to attack the enemy territory, and detect a user's selection of a deploy point on the enemy territory. The software product, when executed on the computing hardware, is configured to execute deployment of the one of the one or more troop transportation units on the enemy territory, upon detection of the user's selections. Consequently, troops emerging from the one of the one or more troop transportation units enter the enemy territory from one or more areas in a proximity of the deploy point.

Apart from the one or more troop transportation units, the one or more user-selectable graphical objects may also include one or more supplemental fires. The one or more supplemental fires may, for example, include one or more weapons, one or more ammunitions, one or more flash fires, and the like. The one or more supplemental fires may be fired from one of the one or more troop transportation units and/or a battle-ship positioned in a sea, for example, to supplement the troops.

The software product, when executed on the computing hardware, is optionally configured to detect a user's selection of one of the one or more supplemental fires to be fired, and detect a user's selection of a fire point on the enemy territory. Accordingly, the software product, when executed on the computing hardware, is optionally configured to execute firing of the one of the one or more supplemental fires on the fire point selected on the enemy territory, upon detection of the user's selections.

In an embodiment of the present disclosure, the one of the one or more supplemental fires is a flash fire that, when fired, re-directs the troops to pass through one or more areas in a proximity of the fire point.

Moreover, the software product, when executed on the computing hardware, is optionally configured to levy a cost of usage of the one of the one or more supplemental fires. Optionally, the cost of usage may be substantially different for each usage of the one of the one or more supplemental fires. In an embodiment of the present disclosure, the cost of usage increases with each usage of the one of the one or more supplemental fires. In another embodiment of the present disclosure, the cost of usage increases after the one of the one or more supplemental fires has been used a predefined number of times.

Moreover, the software product, when executed on the computing hardware, is configured to present a second view of the map on the graphical user interface. The second view of the map displays one or more user-owned territories and one or more enemy territories. Accordingly, the software product, when executed on the computing hardware, is configured to enable a user's selection of one of the one or more enemy territories to be attacked.

The second view of the map optionally includes one or more visible areas and one or more at-least-partially-hidden areas. In such a situation, the software product, when executed on the computing hardware, is optionally configured to present a user-selectable map-resource object on the graphical user interface, detect a user's selection of the user-selectable map-resource object, and present a third view of the map on the graphical user interface. Based at least partially upon the user's selection of the user-selectable map-resource object, at least one of the one or more at-least-

partially-hidden areas of the second view of the map is made visible on the third view of the map.

In an example embodiment of the present disclosure, the user-selectable map-resource object includes a radar. Accordingly, the software product, when executed on the computing hardware, is optionally configured to present a user-selectable upgrade option on the graphical user interface, and detect a user's selection of the user-selectable upgrade option. The software product, when executed on the computing hardware, is optionally configured to upgrade the user-selectable map-resource object, based at least partially upon the user's selection of the user-selectable upgrade option. Consequently, the at least one of the one or more at-least-partially-hidden areas is made visible when the user-selectable map-resource object is upgraded.

The software product, when executed on the computing hardware, is optionally configured to levy a cost of usage of the user-selectable map-resource object.

In order to detect user's selections, the electronic device also includes a user input interface rendered over the graphical user interface. The user input interface is configured to detect an input corresponding to moving a pointer object, clicking or tapping the pointer object, or swiping a touch-sensitive object over the graphical user interface.

Moreover, the electronic device optionally includes a database for substantially continuously recording and updating changes in status of the one or more user-selectable graphical objects. The software product, when executed on the computing hardware, is coupled to the database. The software product, when executed on the computing hardware, is optionally configured to resume the status of the one or more user-selectable graphical objects to their last updated status in the database, in case of interruptions in the operable state of the graphical user interface.

In an embodiment of the present disclosure, a plurality of electronic devices are coupled in communication with a server via a communication network. Graphical user interfaces are generated temporally concurrently on display screens of the plurality of electronic devices, to facilitate interactions of a plurality of users with the graphical user interfaces. Beneficially, the graphical user interfaces generated on the plurality of electronic devices are coordinated and synchronized through the server, and updated on the plurality of electronic devices concurrently with time.

Examples of these electronic devices include, but are not limited to, mobile phones, smart telephones, Mobile Internet Devices (MIDs), tablet computers, Ultra-Mobile Personal Computers (UMPCs), phablet computers, Personal Digital Assistants (PDAs), web pads, Personal Computers (PCs), Handheld PCs, laptop computers, desktop computers, Network-Attached Storage (NAS) devices, large-sized touch screens with embedded PCs, and interactive entertainment devices, such as game consoles, Television (TV) sets and Set-Top Boxes (STBs).

Referring now to the drawings, particularly by their reference numbers, FIG. 2 is a schematic illustration of an example network environment **200** that is suitable for practicing embodiments of the present disclosure. The network environment **200** includes one or more electronic devices, depicted as an electronic device **202a**, an electronic device **202b** and an electronic device **202c** in FIG. 2 (hereinafter collectively referred to as electronic devices **202**). The network environment **200** also includes a server **204** and a communication network **206**. The server **204** is coupled to a database **208**.

The network environment **200** may be implemented in various ways, depending on various possible scenarios. In one example scenario, the network environment **200** may be

implemented by way of a spatially collocated arrangement of the server **204** and the database **208**. In another example scenario, the network environment **200** may be implemented by way of a spatially distributed arrangement of the server **204** and the database **208** coupled mutually in communication via the communication network **206**. In yet another example scenario, the server **204** and the database **208** may be implemented via cloud computing services.

The electronic devices **202** are coupled in communication with the server **204** via the communication network **206**. The communication network **206** can be a collection of individual networks, interconnected with each other and functioning as a single large network. Such individual networks may be wired, wireless, or a combination thereof. Examples of such individual networks include, but are not limited to, Local Area Networks (LANs), Wide Area Networks (WANs), Metropolitan Area Networks (MANs), Wireless LANs (WLANs), Wireless WANs (WWANs), Wireless MANs (WMANs), the Internet, second generation (2G) telecommunication networks, third generation (3G) telecommunication networks, fourth generation (4G) telecommunication networks, and Worldwide Interoperability for Microwave Access (WiMAX) networks.

Additionally or alternatively, the electronic devices **202** may use their own "Bluetooth" network, and connect to a "Bluetooth" server, to synchronize with other electronic devices. ("Bluetooth" is a registered trademark).

Examples of the electronic devices **202** include, but are not limited to, mobile phones, smart telephones, Mobile Internet Devices (MIDs), tablet computers, Ultra-Mobile Personal Computers (UMPCs), phablet computers, Personal Digital Assistants (PDAs), web pads, Personal Computers (PCs), Handheld PCs, laptop computers, desktop computers, Network-Attached Storage (NAS) devices, large-sized touch screens with embedded PCs, and interactive entertainment devices, such as game consoles, Television (TV) sets and Set-Top Boxes (STBs).

The network environment **200** is suitable for operating various gaming systems, simulation systems, or other similar systems. In an embodiment of the present disclosure, the network environment **200** is suitable for operating an online multiplayer gaming system.

In one embodiment, the network environment **200** is used to implement a thin-client game. Accordingly, the gaming system may be arranged in a manner that its functionality is implemented partly in the electronic devices **202** and partly in the server **204**.

In another embodiment, the network environment **200** is used to implement a thick-client game. According, the gaming system may be arranged in a manner that its functionality is implemented substantially in the electronic devices **202**.

In yet another embodiment, the network environment **200** is used to implement a web-based game. Accordingly, the gaming system may be arranged in a manner that its functionality is implemented substantially in the server **204**.

The electronic devices **202** may access the server **204** to download one or more new games or update one or more existing games.

Users associated with the electronic devices **202** play one or more games provided by the gaming system. The gaming system may enable the users to interact and/or share some information with each other.

Additionally, the gaming system may enable some or all of the users to play a game mutually, for example, against each other or as a team. Alternatively, the gaming system may enable the users to play their individual games irrespective of each other.

For illustration purposes, let us consider that a user A is associated with the electronic device **202a**, a user B is associated with the electronic device **202b**, and a user C is associated with the electronic device **202c**. Let us also consider an example situation where the gaming system enables the users A and B to play a game mutually, for example, against each other. Accordingly, graphical user interfaces are generated temporally concurrently on display screens of the electronic devices **202a** and **202b**, to facilitate interactions of the users A and B with their graphical user interfaces, respectively. In the example situation, the server **204** coordinates and synchronizes the graphical user interfaces generated on the electronic devices **202a** and **202b**, and updates the graphical user interfaces on the electronic devices **202a** and **202b** concurrently with time.

Now, let us consider another example situation where the gaming system enables the user C to play a game solitarily. In such a situation, the electronic device **202c** need not be coupled to the server **204** substantially continuously, for example, during playing of the game. The electronic device **202c** may be coupled to the server **204**, for example, when downloading the game from the server. Additionally, the electronic device **202c** may be coupled to the server **204** periodically or randomly, for example, to receive updates from the server **204**.

Furthermore, the server **204** stores game-related information in the database **208**. The game-related information may, for example, include at least one of: accounts of the users, credits of the users, scores of the users, status of games being played by the users, screen-shots of the games, game-related parameters, game views being used by the users, game levels at which the users are playing, versions of the games, and/or associated time-stamps.

Beneficially, the electronic devices **202** and/or the server **204** substantially continuously record and update changes in the status of the games being played by the users in the database **208**. The electronic devices **202** are optionally configured to resume the status of the games to their last updated status in the database **208**, in case of interruptions in the operable state of the graphical user interfaces.

Optionally, the game-related information, including information about the changes in the status of the games, may be sent to the server **204** in a form of data packages. A data package may typically include a header, a payload and a checksum. The checksum can be a function of the payload. Alternatively, the checksum can be a unique identifier of the user, such as a username being used by the user. Those skilled in the art will understand that an appropriate checksum function or a checksum algorithm may be applied to a plurality of data packages to obtain the checksum, while the game is being played.

In order to avoid possible frauds, the checksum corresponding to a particular data package can be recomputed at any point of time, and compared with the checksum stored with that particular data package. Thus, including the checksum in the data package potentially reduces occurrences of frauds in the game.

FIG. 2 is merely an example, which should not unduly limit the scope of the claims herein. It is to be understood that the specific designation for the network environment **200** is provided as an example and is not to be construed as limiting the network environment **200** to specific numbers, types, or arrangements of electronic devices, servers, communication networks and databases. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

FIG. 3 is a schematic illustration of various components of an electronic device **300**, in accordance with an embodiment of the present disclosure. The electronic device **300** includes, but is not limited to, a data memory **302**, a computing hardware such as a processor **304**, Input/Output (I/O) devices **306**, a network interface **308**, and a system bus **310** that operatively couples various components including the data memory **302**, the processor **304**, the I/O devices **306** and the network interface **308**. The electronic device **300** also includes a power source (not shown in FIG. 3) for supplying electrical power to the various components of the electronic device **300**. The power source may, for example, include a rechargeable battery.

The data memory **302** optionally includes non-removable memory, removable memory, or a combination thereof. The non-removable memory, for example, includes Random-Access Memory (RAM), Read-Only Memory (ROM), flash memory, or a hard drive. The removable memory, for example, includes flash memory cards, memory sticks, or smart cards.

The data memory **302** stores a software product **312**, while the processor **304** is operable to execute the software product **312**. Executing the software product **312** on the processor **304** results in generating and rendering a graphical user interface on the display screen. The graphical user interface is configured to facilitate user interactions.

The computing hardware, the software product **312** and the graphical user interface are optionally implemented on a gaming system. In an embodiment of the present disclosure, the gaming system includes a war strategy game.

Accordingly, the I/O devices **306** facilitate a user input interface rendered over the graphical user interface. The user input interface is optionally configured to detect an input corresponding to moving a pointer object, clicking or tapping the pointer object, or swiping a touch-sensitive object over the graphical user interface.

The I/O devices **306** include a display screen for presenting graphical images to a user of the electronic device **300**. Beneficially, the display screen may be a touch-sensitive display screen that is operable to provide the user input interface. The touch-sensitive display screen is operable to receive tactile inputs from the user. These tactile inputs may, for example, include clicking, tapping, pointing, moving, pressing and/or swiping with a finger or a touch-sensitive object like a pen.

The touch-sensitive display screen is optionally configured to sense a pressure applied by the finger or the touch-sensitive object. In one example, the touch-sensitive display screen may be a capacitive touch screen that is operable to detect changes in capacitance. In another example, the touch-sensitive display screen may be a resistive touch screen that is operable to detect changes in resistance. In yet another example, the touch-sensitive display screen is an optical touch screen that is operable to detect changes in reflectivity.

Upon detecting the tactile inputs, the software product **312**, when executed on the processor **304**, is configured to identify a gesture related to the tactile inputs. The gesture may take into account at least one of: a force applied by the user, a pressure applied by the user, a speed with which the pointer object was moved, a duration for which the gesture was applied, and/or a position on the touch-sensitive display screen where the gesture was applied. Consequently, the software product **312**, when executed on the processor **304**, is configured to analyse the gesture, and to apply an appropriate action corresponding to the gesture.

Additionally or alternatively, the I/O devices **306** include a mouse, a keyboard or a joystick that is operable to receive

11

inputs corresponding to clicking, pointing, and/or moving a pointer object on the graphical user interface.

Moreover, the I/O devices **306** may also include a speaker for providing an audio output to the user, and a microphone for receiving an audio input from the user.

Optionally, the electronic device **300** includes non-transient data storage arrangements, for example, such as a database (not shown in FIG. 3). The software product **312**, when executed on the processor **304**, is optionally coupled to the database. The software product **312**, when executed on the processor **304**, is optionally configured to substantially continuously record and update changes in status of a game being played by the user in the database. The software product **312**, when executed on the processor **304**, is optionally configured to resume the status of the game to its last updated status in the database, in case of interruptions in the operable state of the graphical user interface.

Additionally, the software product **312**, when executed on the processor **304**, may store game-related information in the database. The game-related information may, for example, include at least one of: an account of the user, credits of the user, scores of the user, the status of the game, screen-shots of the game, game-related parameters, a game view being used by the user, a game level at which the user is playing, a version of the game, and/or associated time-stamps.

Moreover, the network interface **308** optionally allows the electronic device **300** to upload the game-related information to a remote server (not shown in FIG. 3), for example, via a communication network (not shown in FIG. 3). Additionally, the network interface **308** may allow the electronic device **300** to access the remote server to download one or more new games or update one or more existing games.

Moreover, the network interface **308** optionally allows the electronic device **300** to communicate with other electronic devices, for example, via the communication network. The communication network may, for example, be a collection of individual networks, interconnected with each other and functioning as a single large network. Such individual networks may be wired, wireless, or a combination thereof. Examples of such individual networks include, but are not limited to, LANs, WANs, MANs, WLANs, WWANs, WMANs, 2G telecommunication networks, 3G telecommunication networks, 4G telecommunication networks, and WiMAX networks. Additionally or alternatively, the electronic device **300** may also use its own "Bluetooth" network, and connect to a "Bluetooth" server, to synchronize with the other electronic devices.

The electronic device **300** is optionally implemented by way of at least one of: a mobile phone, a smart telephone, an MID, a tablet computer, a UMPC, a phablet computer, a PDA, a web pad, a PC, a Handheld PC, a laptop computer, a desktop computer, an NAS device, a large-sized touch screen with an embedded PC, and an interactive entertainment device, such as a game console, a TV set and an STB.

FIG. 3 is merely an example, which should not unduly limit the scope of the claims herein. It is to be understood that the specific designation for the electronic device **300** is provided as an example and is not to be construed as limiting the electronic device **300** to specific numbers, types, or arrangements of modules and/or components of the electronic device **300**. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure. For example, the electronic device **300** could be implemented as the electronic devices **202**, and vice versa.

FIGS. 4A, 4B, 4C and 4D are illustrations of an example game view **400** of a gaming system, in accordance with an

12

embodiment of the present disclosure. The gaming system may, for example, include a war strategy game in which a user's purpose is to expand his/her territory, for example, by attacking one or more enemy territories. An enemy territory may, for example, be a territory owned by another user or a simulated opponent.

For illustration purposes only, let us assume that the gaming system has been implemented on the electronic device **300**. The software product **312**, when executed on the processor **304**, is configured to present the example game view **400** on the graphical user interface generated and rendered on the display screen of the electronic device **300**. The example game view **400** may, for example, be a first view of a map that displays an enemy territory being attacked by the user. The enemy territory includes a land region **402** and a shore region **404**, as shown in FIG. 4A. A plurality of target objects, depicted as a target object **406a** and a target object **406b** in FIG. 4A, are positioned in the land region **402**. The target objects **406a** and **406b** may, for example, include headquarters or other defense objects belonging to the enemy territory.

The software product **312**, when executed on the processor **304**, is also configured to present one or more user-selectable graphical objects on the graphical user interface. The one or more user-selectable graphical objects may be presented within a selection-menu area **408** on the graphical user interface, as shown in FIG. 4A. With reference to FIG. 4A, the selection-menu area **408** has been positioned in a proximity of a periphery of the graphical user interface. In one example, the selection-menu area **408** may be displayed substantially continuously during playing of the game. In another example, the selection-menu area **408** may be displayed as and when required, for example, when the user slides a pointer object towards the periphery of the graphical user interface.

The one or more user-selectable graphical objects include one or more troop transportation units, depicted as a troop transportation unit **410a**, a troop transportation unit **410b** and a troop transportation unit **410c** in FIG. 4 (hereinafter collectively referred to as troop transportation units **410**). Examples of the troop transportation units **410** include, but are not limited to, war-ships, war-planes, war-vessels, and warcrafts. Use of the troop transportation units **410** may not be limited to transportation of troops from a user-owned territory to the enemy territory, but may additionally or alternatively include carrying weapons, ammunitions and other supplies for the troops.

The software product **312**, when executed on the processor **304**, is configured to detect a user's selection of one of the troop transportation units **410** to be deployed to attack the enemy territory, and detect a user's selection of a deploy point on the enemy territory. The software product **312**, when executed on the processor **304**, is configured to execute deployment of the one of the troop transportation units **410** on the enemy territory, upon detection of the user's selections.

With reference to FIG. 4B, let us consider an example situation where the user selected a first deploy point **412a** for deploying the troop transportation unit **410a**, a second deploy point **412b** for deploying the troop transportation unit **410b** and a third deploy point **412c** for deploying the troop transportation unit **410c**, for example, one after another. As shown in FIG. 4B, the troop transportation units **410a**, **410b** and **410c** are deployed as close to their respective deploy points **412a**, **412b** and **412c** as possible on the shore region **404**. Beneficially, the troop transportation units **410a**, **410b** and **410c** are deployed to a free space that is nearest to their respective deploy points **412a**, **412b** and **412c**.

Consequently, troops emerging from the troop transportation units **410a**, **410b** and **410c** enter the enemy territory from

13

one or more areas in proximities of their respective deploy points **412a**, **412b** and **412c**. With reference to FIG. 4B, curved arrows **414a**, **414b** and **414c** depict target routes taken by the troops emerging from the troop transportation units **410a**, **410b** and **410c**, respectively.

Moreover, the software product **312**, when executed on the processor **304**, may be configured to enable a user's selection of a type of troop to be deployed, for example, by providing one or more troop-type options on the selection-menu area **408**.

With reference to FIG. 4B, the troop transportation units **410** have been deployed from the shore region **404**. It is to be noted here that the deployment of the troop transportation units **410** is not limited to the shore region **404**. Troop transportation units, such as war-planes, may be deployed at any deploy point on the enemy territory.

Moreover, in another example situation, one of the target objects **406a** and **406b** may be a defense object that applies various defense mechanisms, such as throwing flames or firing ammunitions, against the troops that have entered the enemy territory. In such a situation, the user may choose to supplement the troops, for example, by using one or more supplemental fires.

Accordingly, the one or more user-selectable graphical objects may include one or more supplemental fires. The software product **312**, when executed on the processor **304**, is optionally configured to detect a user's selection of one of the one or more supplemental fires to be fired, and detect a user's selection of a fire point on the enemy territory. Accordingly, the software product **312**, when executed on the processor **304**, is optionally configured to execute firing of the one of the one or more supplemental fires on the fire point selected on the enemy territory, upon detection of the user's selections.

The one or more supplemental fires may, for example, include one or more weapons, one or more ammunitions, one or more flash fires, and the like. The one or more supplemental fires may be fired, for example, from one of the troop transportation units **410** and/or a battle-ship positioned in a sea near the shore region **404**. With reference to FIG. 4B, the one or more supplemental fires include a weapon **416**, an ammunition **417** and a flash fire **418**, presented within the selection-menu area **408**.

With reference to FIG. 4C, let us assume that the user selected a fire point **420** for firing the ammunition **417**. Accordingly, the ammunition **417** is fired at the fire point **420**, as shown in FIG. 4C.

With reference to FIG. 4D, let us assume that the user selected a fire point **422** for firing the flash fire **418**. The user may use the flash fire **418** to guide troops that have entered the enemy territory, for example, to enable the troops to reach a desired target object. In an example situation where the target object **106a** has been at least partially destroyed, the user may choose to attack the target object **106b**.

Accordingly, the flash fire **418** is fired on the fire point **422**. Consequently, the flash fire **418** re-directs the troops to pass through one or more areas in a proximity of the fire point **422**. Accordingly, the troops that have entered the enemy territory take a target route **424**, as shown in FIG. 4D. The target route **424** passes through the areas in the proximity of the fire point **422**, and re-directs the troops towards a nearest target object. With reference to FIG. 4D, the target route **424** re-directs the troops towards the target object **406b**.

In this manner, the gaming system enables the user to define a war strategy as per his/her desire.

FIGS. 4A, 4B, 4C and 4D are merely examples, which should not unduly limit the scope of the claims herein. A

14

person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

Furthermore, the software product **312**, when executed on the processor **304**, is optionally configured to levy a cost of usage of the one or more supplemental fires. In an embodiment of the present disclosure, the software product **312**, when executed on the processor **304**, is configured to allocate funds for usage of the one or more supplemental fires. The allocation of the funds may, for example, be based on at least one of: points earned by the user, resources collected by the user, and/or a current score of the user. Accordingly, the software product **312**, when executed on the processor **304**, is optionally configured to levy the cost of usage from the allocated funds.

Additionally, the software product **312**, when executed on the processor **304**, may be configured to increase the allocated funds during playing of the game. In one example, the allocated funds may be increased when the user destroys one of the target objects **406a** and **406b**.

Optionally, the cost of usage may be substantially different for each usage of a particular supplemental fire. In an embodiment of the present disclosure, the cost of usage increases with each usage of the particular supplemental fire. In another embodiment of the present disclosure, the cost of usage increases after the particular supplemental fire has been used a predefined number of times.

In order to illustrate how the cost of usage may be varied, let us consider an example table in which costs of usage of example supplemental fires have been provided. The costs have been provided in arbitrary units.

Supplemental Fire	First Usage	Second Usage	Third Usage	N th Usage
F1	2	4	8	2 ^N
F2	1	2	3	N
F3	10	5	3.33	10/N
F4	1	1.1	1.2	1 + (N - 1)/10
F5	1	4	3	Random

The column 'First Usage' provides a cost of a first usage of a particular supplemental fire. The column 'Second Usage' provides a cost of a second usage of the particular supplemental fire. The column 'Third Usage' provides a cost of a third usage of the particular supplemental fire. The column 'Nth Usage' provides a cost of an Nth usage of the particular supplemental fire, where N is any positive integer.

The supplemental fires 'F1', 'F2', 'F3', 'F4' and 'F5' may, for example, include one or more weapons, one or more ammunitions, one or more flash fires, and the like.

It can be seen from the example table that the cost of usage increases with each usage of the supplemental fires 'F1', 'F2' and 'F4'. This potentially encourages the user to use the allocated funds for different supplemental fires, and not use a particular supplemental fire repeatedly.

In other scenarios, it can be seen from the example table that the cost of usage decreases with each usage of the supplemental fire 'F3', while the cost of usage is randomly chosen for each usage of the supplemental fire 'F5'. This may provide an element of surprise for the user, and make user's experience of playing the game even more enjoyable.

Let us consider an example scenario in which the software product **312**, when executed on the processor **304**, has allocated '6 units' as funds for usage of the supplemental fires 'F1', 'F2' and 'F5'. In order to optimize utilization of the allocated funds, the user may optimally choose to fire the

15

supplemental fire 'F1' once, the supplemental fire 'F2' twice, and the supplemental fire 'F5' once. From the example table, it can be seen that:

the cost of a first usage of the supplemental fire 'F1'=2 units

the cost of a first usage of the supplemental fire 'F2'=1 unit

the cost of a second usage of the supplemental fire 'F2'=2 units

units

the cost of first usage of the supplemental fire 'F5'=1 unit

Therefore, the total cost of usage=2+1+2+1=6 units

In this manner, increase in the cost of usage potentially encourages the user to use the allocated funds for different supplemental fires, and not use a particular supplemental fire repeatedly. This facilitates optimal usage of the supplemental fires.

Costs of usages provided in the example table are merely examples, which should not unduly limit the scope of the claims herein. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

FIG. 5 is an illustration of an example screenshot of a game view 500 of the gaming system, in accordance with an embodiment of the present disclosure. The game view 500 may, for example, be a first view of a map that displays an enemy territory being attacked by the user. The enemy territory includes a land region 502 and a shore region 504, as shown in FIG. 5. Target objects 506a and 506b are positioned in the land region 502. In an example, the target objects 506a and 506b may be a head-quarter and a defense tower, respectively, belonging to the enemy territory.

Troop transportation units 508 are deployed as close to their respective deploy points 510 as possible on the shore region 504. Consequently, troops 512 emerging from the troop transportation units 508 enter the enemy territory from one or more areas in proximities of their respective deploy points 510.

Moreover, the user may select a type of troop to be deployed, for example, by selecting one or more troop-type options 514 provided on a selection-menu area 516.

In an example situation where the target object 506b throws flames 518 on the troops 512, the user may choose to supplement the troops 512, for example, by using supplemental fires 520 provided on the selection-menu area 516. The supplemental fires 520 may, for example, include one or more weapons, one or more ammunitions, one or more flash fires, and the like. The supplemental fires 520 may be fired, for example, from one of the troop transportation units 508 and/or a battle-ship 522 positioned in a sea 524.

In the game view 500, funds 526 have been allocated for usage of various resources, such as the supplemental fires 520. When a particular supplemental fire is fired, the cost of usage of that particular supplemental fire is levied from the funds 526.

FIG. 5 is merely an example, which should not unduly limit the scope of the claims herein. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

FIG. 6 is an illustration of an example screenshot of a game view 600 of the gaming system, in accordance with an embodiment of the present disclosure. The game view 600 may, for example, be a first view of a map that displays an enemy territory being attacked by the user. The enemy territory includes a land region 602 and a shore region 604, as shown in FIG. 6. A target object 606 is positioned in the land region 602. In an example, the target object 606 may be a head-quarter belonging to the enemy territory.

16

Troop transportation units 608a, 608b and 608c are deployed to a free space that is nearest to their respective deploy points 610a, 610b and 610c. Consequently, troops 612 emerging from the troop transportation units 608a, 608b and 608c enter the enemy territory from one or more areas in proximities of their respective deploy points 610a, 610b and 610c.

With reference to FIG. 6, the troops 612 are attacking the target object 606 from a particular location beside the target object 606. In order to guide the troops 612 to reach that particular location, the user selects a flash fire 614 to be fired at a fire point 616. The flash fire 614 may, for example, be fired from a battle-ship 618 positioned in a sea 620.

FIG. 6 is merely an example, which should not unduly limit the scope of the claims herein. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

FIG. 7 is an illustration of an example game view 700 of the gaming system, in accordance with an embodiment of the present disclosure. The example game view 700 may, for example, be a first view of a map that displays an enemy territory being attacked by the user. The enemy territory includes a land region 702 and a shore region 704, as shown in FIG. 7. A plurality of target objects, depicted as a target object 706a and a target object 706b in FIG. 7, are positioned in the land region 702.

Let us consider an example scenario in which the user chose to deploy a troop transportation unit 708a at a deploy point 710a first. As shown in FIG. 7, the troop transportation unit 708a is deployed to a free space that is nearest to its respective deploy point 710a. Consequently, troops emerging from the troop transportation unit 708a enter the enemy territory from one or more areas in a proximity of the deploy point 710a, for example, to attack the target object 706a.

In the example scenario, the user next chooses to deploy a troop transportation unit 708b at a deploy point 710b that is positioned above the deploy point 710a on the shore region 704. With reference to FIG. 7, no free space is available on the shore region 704 above the troop transportation unit 708a. Consequently, the troop transportation unit 708b is being deployed at a free space below the troop transportation unit 708a that is nearest to its respective deploy point 710b, as depicted by an arrow 712a.

Troops emerging from the troop transportation unit 708b enter the enemy territory from one or more areas in a proximity of the deploy point 710b, irrespective of a location at which the troop transportation unit 708b is deployed. In this manner, the gaming system enables the user to control deployment of the troops, thereby enabling the user to define a war strategy as per his/her desire.

Furthermore, in the example scenario, the user chooses to deploy a troop transportation unit 708c at a deploy point 710c. With reference to FIG. 7, sufficient free space is available on the shore region 704. Consequently, the troop transportation unit 708c is being deployed to a free space that is nearest to its respective deploy point 710c, as depicted by an arrow 712b.

FIG. 7 is merely an example, which should not unduly limit the scope of the claims herein. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

FIGS. 8A, 8B and 8C are illustrations of an example game view 800 of the gaming system, in accordance with an embodiment of the present disclosure. As described earlier, the gaming system may include a war strategy game in which the user's purpose is to expand his/her territory, for example,

by attacking one or more enemy territories. An enemy territory may, for example, be a territory owned by another user or a simulated opponent.

For illustration purposes only, let us assume that the gaming system has been implemented on the electronic device **300**. The software product **312**, when executed on the processor **304**, is configured to present the example game view **800** on the graphical user interface generated and rendered on the display screen of the electronic device **300**. The example game view **800** includes a second view of the map depicted in FIG. **8A**, a third view of the map depicted in FIG. **8B**, and a fourth view of the map depicted in FIG. **8C**.

With reference to FIG. **8A**, the second view of the map displays one or more user-owned territories, depicted as a user-owned territory **802**; one or more enemy territories, depicted as enemy territories **804a**, **804b**, **804c**, **804d** and **804e** (hereinafter collectively referred to as enemy territories **804**); and one or more friend territories, depicted as friend territories **806a**, **806b** and **806c** (hereinafter collectively referred to as friend territories **806**). A friend territory may, for example, be a territory that may have been freed from an enemy. Additionally, the second view of the map displays one or more treasures, depicted as a treasure **808**.

With reference to FIG. **8A**, the user-owned territory **802** is located in a middle portion of the second view of the map, for example, by default. The software product **312**, when executed on the processor **304**, may be configured to allow the user to slide the second view of the map in all the directions, zoom-in to and zoom-out from the second view of the map, and so on.

The second view of the map includes one or more visible areas, depicted as a visible area **810**, and one or more at-least-partially-hidden areas, depicted as at-least-partially-hidden areas **812**. The user-owned territory **802**, the enemy territories **804**, the friend territories **806** and the treasure **808** are located within the visible area **810**, and therefore, are visible to the user.

The software product **312**, when executed on the processor **304**, is optionally configured to present a user-selectable map-resource object **814** on the graphical user interface, and detect a user's selection of the user-selectable map-resource object **814**. Consequently, the software product **312**, when executed on the processor **304**, is optionally configured to present a user-selectable upgrade option **816** on the graphical user interface, detect a user's selection of the user-selectable upgrade option **816**, and upgrade the user-selectable map-resource object **814**, based at least partially upon the user's selection of the user-selectable upgrade option **816**.

In an example embodiment of the present disclosure, the user-selectable map-resource object **814** includes a radar. Consequently, the software product **312**, when executed on the processor **304**, is configured to present a third view of the map on the graphical user interface, as shown in FIG. **8B**. Based at least partially upon the user's selection of the user-selectable map-resource object **814**, at least one of the at-least-partially-hidden areas **812** of the second view of the map is made visible on the third view of the map. Beneficially, the at least one of the at-least-partially-hidden areas **812** is made visible when the user-selectable map-resource object **814** is upgraded. In this manner, the user may upgrade the user-selectable map-resource object **814** to explore unexplored areas.

With respect to FIGS. **8A** and **8B**, an at-least-partially-hidden area **818** on the second view of the map is made visible, and is shown as a visible area **822** on the third view of the map. As a result, a treasure **824** located within the visible area **822** is now visible to the user.

Moreover, the software product **312**, when executed on the processor **304**, is optionally configured to levy a cost of usage of the user-selectable map-resource object **814**. The cost of usage of the user-selectable map-resource object **814** may be different for different at-least-partially-hidden areas. With reference to FIG. **8A**, the cost of usage of the user-selectable map-resource object **814** for the at-least-partially-hidden area **818** is displayed as a cost **820** beside the user-selectable upgrade option **816**. The cost of usage may be provided in any arbitrary units, and may be levied with respect to various resources, such as gold, gems, wood and stones, collected by the user.

With respect to FIG. **8B**, the user may next choose to make an at-least-partially-hidden area **826** visible, for example, by upgrading the user-selectable map-resource object **814** again. With reference to FIG. **8C**, the at-least-partially-hidden area **826** on the third view of the map is shown as a visible area **828** on the fourth view of the map. Consequently, the visible area **828** is now visible to the user.

Moreover, in an example situation where some or all of the enemy territories **804** are owned by other users, the other users may be selected randomly, for example, when the second view of the map is opened. Alternatively, the other users may be selected by the user him/herself. Yet alternatively, the user may invite other players to join the game, for example, using the network interface **308** of the electronic device **300**.

Beneficially, selection of the other users may be dependent on a game level at which the user is playing the game. Accordingly, users playing at substantially similar game levels may be selected to play together with the user.

Furthermore, the software product **312**, when executed on the processor **304**, is optionally configured to enable a user's selection of one of the enemy territories **804** to be attacked. The one of the enemy territories **804** selected by the user may then be displayed in a manner that is similar to the first view of the map as illustrated in FIGS. **5** and **6**.

In a situation where the user attacks the one of the enemy territories **804** and defeats the one of the enemy territories **804**, the user receives resources that were previously in possession of the one of the enemy territories **804**. The resources may, for example, include gold, gems, wood, stones, food, and so on. Accordingly, the software product **312**, when executed on the processor **304**, is optionally configured to transfer to the user the resources that were previously in possession of the one of the enemy territories **804**, when the user defeats the one of the enemy territories **804**.

In accordance with an embodiment of the present disclosure, the user receives the resources that were previously in possession of the one of the enemy territories **804** at a time when the resources of the one of the enemy territories **804** were first revealed to the user. The resources of the one of the enemy territories **804** may, for example, be revealed to the user when the user opens the first view of the map corresponding to the one of the enemy territories **804**.

For illustration purposes only, let us consider an example scenario as described below:

1) At a time 't1', a particular enemy territory has 150 units of a particular resource, such as gold, in possession. Let us assume that the particular enemy territory is owned by an opponent user.

2) The user chooses to open the first view of the map corresponding to the particular enemy territory, for example, to attack or visit the particular enemy territory at the time 't1' or a time that is substantially close to the time 't1', and finds that the particular enemy territory has 150 units of the particular resource in possession.

19

3) The user subsequently chooses to attack the particular enemy territory at the time 't1' or the time that is substantially close to the time 't1'. Let us assume that the user does not win a battle against the particular enemy territory. Accordingly, the particular resource may not be transferred to the user. Alternatively, the particular resource may be transferred only partially to the user.

4) Over a period of time, for example, at a time 't2', the particular enemy territory earns and/or gathers more units of the particular resource, say 3000 units of the particular resource.

5) The user chooses to attack the particular enemy territory again, for example, at the time 't2' or a time that is substantially close to the time 't2'. The user sees that the particular enemy territory has 150 units of the particular resource in possession, i.e., an amount of the particular resource that was revealed to the user at the time 't1' or the time that is substantially close to the time 't1'. Let us assume that the user wins the battle and defeats the opponent user. Accordingly, 150 units of the particular resource are transferred to the user.

6) As the opponent user lost the battle, the opponent user loses 3000 units of the particular resource, i.e., 100% of the particular resource he/she had in possession at the time 't2'.

In this manner, the gaming system ensures that the user receives the amount of the particular resource that was first revealed to the user, as the user saw the amount as an opportunity when the user attacked again. The gaming system also ensures that the opponent user loses 100% of the particular resource he/she had in possession, as it would not be fair if the opponent user loses only 150 units from 3000 units of the particular resource even after losing the battle. This potentially leads to optimal distribution of resources, and facilitates a balance in an economic system between the user and the opponent user.

Furthermore, the user can receive additional resources from one or more of the friend territories **806** that were freed from an enemy, for example, as a reward for freeing the one or more of the friend territories **806**. Accordingly, the software product **312**, when executed on the processor **304**, is optionally configured to transfer to the user the additional resources from the one or more of the friend territories **806**. Beneficially, the additional resources may be transferred on a periodic basis. For example, a particular friend territory may transfer 10 units of a resource per hour to the user.

FIGS. **8A**, **8B** and **8C** are merely examples, which should not unduly limit the scope of the claims herein. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

FIG. **9** is an illustration of an example game view **900** of the gaming system, in accordance with an embodiment of the present disclosure. The example game view **900** displays a home base of the user. The home base of the user includes a land region **902** and a shore region **904**.

One or more user-selectable graphical objects, depicted as user-selectable graphical objects **906**, are positioned in the land region **902**. In an example, the user-selectable graphical objects **906** may include a head-quarter, one or more defense towers and other supporting structures.

The user can create, build, move, update or upgrade the user-selectable graphical objects **906**. In one example, the user can use a new option **908** to create new user-selectable graphical objects.

With reference to FIG. **9**, one or more user-selectable options **910** are presented to the user, for example, when the user selects one of the user-selectable graphical objects **906**. The user-selectable options **910** may, for example, include an upgrade option that, when selected, upgrades the one of the

20

user-selectable graphical objects **906** from its current level to a higher level. Additionally, the user-selectable options **910** may include an information option that, when selected, provides the user with information related to the one of the user-selectable graphical objects **906**.

Optionally, one or more landscape objects, such as trees and cliffs, are displayed in the example game view **900**, for example, corresponding to a landscape view selected by the user.

With reference to FIG. **9**, an enemy can enter from the shore region **904** to attack the home base of the user. The shore region **904** is beside a sea **912** that surrounds the home base of the user.

A dock structure **914** is built in the sea **912**. The dock structure **914** provides a free space for docking troop transportation units **916**, a battle-ship **918**, and a cargo-ship **920**. The cargo-ship **920** may, for example, deliver supplies to and from the home base of the user.

Additionally, the user can use the new option **908** to create new troop-transportation units and battle-ships. It is to be noted here that the free space of the dock structure **914** can be limited or unlimited, for example, depending on a game configuration being used.

Moreover, the user can access other game views from the example game view **900**. In one example, the user can access a map to select an enemy territory to be attacked. The map may be accessed, for example, using a map-view option **922**.

Typically, there are certain resources in possession of the user. Available resources are beneficially displayed to the user. With reference to FIG. **9**, the resources include gold units **924**, gems **926** and wood **928**.

The user can use some of these resources for various purposes. In one example, the user can use his/her resources to create or build certain user-selectable graphical objects, such as defense towers, troop transportation units, battle-ships and so on. In another example, the user can use his/her resources to upgrade a user-selectable graphical object or a game level itself.

Information about an amount of these resources in possession of the user is optionally updated to a remote server, such as the server **204**. Beneficially, the information may be updated substantially continuously. Alternatively, the information may be updated periodically.

Moreover, the gaming system may allow the user to receive additional resources by making actual financial payments to the gaming system. Such financial payments may, for example, be made using a payment arrangement that is coupled in communication with the remote server.

Moreover, the example game view **900** also displays users' name **930** and a current score **932** of the user.

Additionally, the example game view **900** also displays a forum option **934**, and a trouble-shooting option **936**. When selected by the user, the forum option **934** initiates a discussion forum with other users, while the trouble-shooting option **936** provides information that helps the user to trouble-shoot problems that he/she may have encountered.

FIG. **9** is merely an example, which should not unduly limit the scope of the claims herein. A person skilled in the art will recognize many variations, alternatives, and modifications of embodiments of the present disclosure.

FIG. **10** is an illustration of steps of a method of facilitating user interactions with a graphical user interface, in accordance with an embodiment of the present disclosure. The method is depicted as a collection of steps in a logical flow diagram, which represents a sequence of steps that can be implemented in hardware, software, or a combination thereof.

21

As described earlier, the graphical user interface is generated and rendered on a display screen of an electronic device, by executing a software product on a computing hardware of the electronic device. The electronic device may, for example, be implemented in a manner that is similar to the implementation of the electronic device 300 and/or the electronic devices 202.

At a step 1002, a first view of a map is presented on the graphical user interface. The first view of the map displays an enemy territory.

At a step 1004, one or more user-selectable graphical objects are presented on the graphical user interface. The one or more user-selectable graphical objects include one or more troop transportation units.

The steps 1002 and 1004 may be performed simultaneously.

At a step 1006, a user's selection of one of the one or more troop transportation units is detected. In accordance with the step 1006, the one of the one or more troop transportation units is selected to be deployed to attack the enemy territory.

At a step 1008, a user's selection of a deploy point on the enemy territory is detected.

At a step 1010, deployment of the one of the one or more troop transportation units on the enemy territory is executed. Consequently, troops emerging from the one of the one or more troop transportation units enter the enemy territory from one or more areas in a proximity of the deploy point.

Optionally, the method may include additional steps at which a user's selection of a supplemental fire to be fired and a fire point on the enemy territory are detected; and consequently, firing of the supplemental fire is executed on the fire point selected on the enemy territory. In an example situation where the supplemental fire is a flash fire, the flash fire redirects the troops to pass through one or more areas in a proximity of the fire point.

In this manner, the method enables the user to control deployment of the troops, thereby enabling the user to define a war strategy as per his/her desire.

Moreover, the method may include an optional step at which a cost of usage of the supplemental fire is levied. The method may also include an optional step at which the cost of usage is increased with each usage of the supplemental fire and/or after the supplemental fires has been used a predefined number of times.

Moreover, the method may include additional steps at which changes in status of the one or more user-selectable graphical objects are substantially continuously recorded and updated in a database coupled to the software product; and the status of the one or more user-selectable graphical objects are resumed to their last updated status in the database, in case of interruptions in the operations of the graphical user interface.

Furthermore, the method may include additional steps at which a plurality of electronic devices are coupled in communication with a server via a communication network; and graphical user interfaces are generated temporally concurrently on display screens of the plurality of electronic devices. The graphical user interfaces are coordinated through the server, and updated on the plurality of electronic devices concurrently with time, to facilitate interactions of a plurality of users with the graphical user interfaces. Beneficially, the method is implemented to facilitate an online multiplayer gaming system.

The steps 1002 to 1010 are only illustrative and other alternatives can also be provided where one or more steps are added, one or more steps are removed, or one or more steps are provided in a different sequence without departing from the scope of the claims herein.

22

Furthermore, the method may include additional steps at which a second view of the map is presented on the graphical user interface, wherein the second view of the map displays one or more user-owned territories and one or more enemy territories. This enables a user to select one of the one or more enemy territories to be attacked.

As illustrated in FIGS. 8A, 8B and 8C, the second view of the map includes one or more visible areas and one or more at-least-partially-hidden areas. The method may include additional steps at which a user-selectable map-resource object is presented on the graphical user interface; a user's selection of the user-selectable map-resource object is detected; and consequently, a third view of the map is presented on the graphical user interface. At least one of the one or more at-least-partially-hidden areas of the second view of the map is made visible on the third view of the map, based at least partially upon the user's selection of the user-selectable map-resource object. For example, the at least one of the one or more at-least-partially-hidden areas is made visible when the user-selectable map-resource object is upgraded.

Embodiments of the present disclosure provide a software product stored on non-transitory (non-transient) machine-readable data storage media, wherein the software product is executable upon the computing hardware of an electronic device, such as the electronic device 300 or one of the electronic devices 202, for implementing the method as described in conjunction with FIG. 10. The software product is optionally, for example, downloadable from a software application store, for example from an "App store", to the electronic device.

Embodiments of the present disclosure are susceptible to being used for various purposes, including, though not limited to, enabling users to control deployment of troops, thereby enabling the users to define a war strategy as per their desire; facilitating optimal usage of supplemental fires; and facilitating a balance in an economic system between opponent users.

Modifications to embodiments of the present disclosure described in the foregoing are possible without departing from the scope of the present disclosure as defined by the accompanying claims. Expressions such as "including", "comprising", "incorporating", "consisting of", "have", "is" used to describe and claim the present disclosure are intended to be construed in a non-exclusive manner, namely allowing for items, components or elements not explicitly described also to be present. Reference to the singular is also to be construed to relate to the plural.

What is claimed is:

1. An electronic device comprising:

a display; and

a computing hardware including a memory, the memory including a software product stored thereon, the computing hardware configured to execute the software product, wherein execution of the software product by the computing hardware causes the computing hardware to generate and render a graphical user interface for a war strategy game on the display, the graphical user interface being divided into two portions and configured to facilitate user interactions with the war strategy game, the computing hardware, the memory and the graphical user interface being implemented on a gaming system for the war strategy game, wherein the computing hardware, upon execution of the software product, is configured to:

23

generate a user input interface over the graphical user interface, the user input interface configured to detect an input on the graphical user interface generated on the display;

generate a rendering of a first view of a map on the first portion of the graphical user interface generated on the display, the first view of the map comprising a landing area portion and an enemy territory portion;

generate a rendering on the second portion of the graphical user interface of a first set of one or more selectable graphical objects, the second portion of the graphical user interface being separated from the first view of the map, wherein the first set of one or more selectable graphical objects comprise one or more troop transportation units;

detect on the user input interface a selection of a troop transportation unit from the one or more troop transportation units;

detect on the user input interface a selection of a deployment point on the landing area portion of the first view of the map;

determine a free space in a proximity of the selected deployment point; and

execute a movement of a troop from the selected troop transportation unit along a first route from the selected troop transportation in the second portion of the graphical user interface to the determined free space on the landing area portion of the first view of the map in the first portion of the graphical user interface, wherein the first route is in a direction towards the enemy territory portion of the first view of the map;

generate a rendering of a second set of one or more selectable graphical objects on the portion of the graphical user interface separated from the first view of the map, wherein the second set of one or more selectable graphical objects comprise one or more flash fire devices;

detect on the user input interface a selection of a flash fire device from the one or more flash fire devices;

detect on the user input interface a selection of a fire point in the enemy territory portion of the first view of the map;

execute an operation of the selected flash fire device on the selected fire point; and

wherein execution of the operation of the selected flash fire device causes the computing hardware to redirect the movement of the troop along the first route to a second route that passes through one or more areas in a proximity of the fire point to the determined free space on the landing area portion of the first view of the map.

2. The electronic device of claim 1, the computing hardware, upon execution of the software product, being configured to:

detect a selection of a next troop transportation unit from the one or more troop transportation units, the selected next troop transportation configured to be deployed onto the landing area;

detect selection of a next deployment point on the landing area;

determine whether a free space on the landing area is available for the selected next troop transportation unit in a proximity of the next deployment point on the landing area; and, if no free space is available:

identify another free space on the landing area that can be used to form a route from the selected next troop transportation unit and the selected next deployment point;

24

execute a rendering of the selected next troop transportation unit to the another free space on the landing area; and

move a next troop along a route from the selected next troop transportation unit to the another free space and towards the enemy territory.

3. The electronic device of claim 2, wherein the computing hardware, upon execution of the software product, is configured to:

detect a selection of another flash fire device from the one or more flash fire devices;

detect a selection of another fire point in the enemy territory;

execute an operation of the selected another flash fire device on the selected another fire point; and

redirect a movement of the next troop from the another free space on the landing area and towards the selected another fire point after execution of the operation of the selected another flash fire device on the selected another fire point.

4. The electronic device of claim 1, wherein the computing hardware, upon execution of the software product, is configured to:

detect a usage of the selected flash fire device; and

levy a cost of usage of the selected flash fire device, wherein the cost of usage varies for each usage of the selected flash fire device.

5. The electronic device of claim 4, wherein the computing hardware, upon execution of the software product, is configured to increase the cost of usage for each firing of the selected flash fire device.

6. The electronic device of claim 4, wherein the computing hardware, upon execution of the software product, is configured to increase the cost of usage after the flash fire device has been fired more than a predefined number of times.

7. The electronic device of claim 1, wherein the computing hardware, upon execution of the software product, is configured to:

render a second view of the map on the graphical user interface, the second view of the map comprising a display of one or more user-owned territories and one or more other enemy territories;

enable a selection of an other enemy territory from the one or more enemy territories to be attacked.

8. The electronic device of claim 7, wherein the second view of the map comprises one or more visible areas and one or more at least partially hidden areas, and wherein the computing hardware, upon execution of the software product, is configured to:

render a map resource object on the graphical user interface;

detect a selection of the map resource object; and

render a third view of the map on the graphical user interface, wherein a partially hidden area from the one or more partially hidden areas of the second view of the map is visible on the third view of the map.

9. The electronic device of claim 8, wherein the computing hardware, upon execution of the software product, is configured to enable the partially hidden area to become visible upon detection of a selection of an upgrade option for the selected map resource object.

10. The electronic device of claim 9, wherein the computing hardware, upon execution of the software product, is configured to:

render a radar device on the graphical user interface as the selected map resource object, the radar device having a first functionality,

25

render a selectable upgrade option on the graphical user interface;
 detect a selection of the selectable upgrade option; and
 upgrade a functionality of the radar device to a second functionality, based upon the detection of the selectable upgrade option, wherein the partially hidden area is made visible when the functionality of the radar device is upgraded to the second functionality.

11. The electronic device of claim 9, wherein the computing hardware, upon execution of the software product, is configured to levy a cost of usage of the selected map resource object.

12. The electronic device of claim 1, further comprising an input interface rendered on the graphical user interface, the input interface being configured to detect an input corresponding to moving a pointer object, clicking or tapping the pointer object, or swiping a touch-sensitive object on or over the graphical user interface.

13. The electronic device of claim 1, further comprising a database for recording and updating changes in status of the one or more selectable graphical objects, the computing hardware configured to be coupled to the database and, upon execution of the software product, is configured to resume the status of the one or more selectable graphical objects to their last updated status in the database, in case of interruptions in an operable state of the graphical user interface.

14. The electronic device of claim 1, comprising a plurality of computing hardware configured to be coupled in communication with a server via a communication network, graphical user interfaces being rendered temporally concurrently on display screens coupled to a respective one of the plurality of computing hardware, to facilitate interactions of a plurality of users with the graphical user interfaces, wherein the rendered graphical user interfaces are coordinated and synchronized through the server, and updated concurrently with time.

15. A method of executing a war strategy game on an electronic device, the electronic device having a graphical user interface corresponding to the war strategy game and divided into two portions, the graphical user interface being generated and rendered on a display screen of the electronic device by a computing hardware, the computer hardware comprising a memory with a software product for the war strategy game stored thereon, the method comprising execution of the software product for the war strategy game by the computing hardware to:

render a first view of a map in a first portion of the graphical user interface, wherein the first view of the map comprises a display of a troop landing area and an enemy territory;

render a first set of one or more selectable graphical objects in the second portion of the graphical user interface, wherein the first set of one or more selectable graphical objects comprise one or more troop transportation units;

detect on the user input interface a selection of a troop transportation unit from the one or more troop transportation units in the second portion of the graphical user interface, the selected troop transportation unit to be deployed to attack the enemy territory;

detect on the user interface a selection of a deployment point on the troop landing area;

execute a movement of a troop from the selected troop transportation unit along a first route from the selected troop transportation unit in the second portion of the graphical user interface to the determined free space on the landing area portion of the first view of the map in the first portion of the graphical user interface, wherein the first route is in a direction towards the enemy territory;

26

generate a rendering of a second set of one or more selectable graphical objects on the second portion of the graphical user interface, wherein the second set of one or more selectable graphical objects comprise one or more flash fire devices;

detect on the user input interface a selection of a flash fire device from the one or more flash fire devices;

detect on the user input interface a selection of a fire point in the enemy territory;

execute an operation of the selected flash fire device on the selected fire point; and

wherein execution of the operation of the selected flash fire device causes the computing hardware to redirect the movement of the troop along the first route to a second route that passes through one or more areas in a proximity of the fire point to the determined free space on the landing area portion of the first view of the map.

16. The method of claim 15, the method comprising, execution of the software product by the computing hardware to:

detect a selection of a next troop transportation unit from the one or more troop transportation units, the selected next troop transportation configured to be deployed onto the landing area;

detect selection of a next deployment point on the landing area;

determine whether a free space on the landing area is available for the selected next troop transportation unit in a proximity of the next deployment point on the landing area; and, if no free space is available:

identify another free space on the landing area that can be used to form a route from the selected next troop transportation unit and the selected next deployment point;

execute a rendering of the selected next troop transportation unit to the another free space on the landing area; and

move a next troop along a route from the selected next troop transportation unit to the another free space and towards the enemy territory.

17. The method of claim 16, comprising execution of the software product by the computing hardware to:

detect a selection of another flash fire device from the one or more flash fire devices;

detect a selection of another fire point in the enemy territory;

execute an operation of the selected another flash fire device on the selected another fire point; and

redirect a movement of the next troop from the another free space on the landing area and towards the selected another fire point after execution of the operation of the selected another flash fire device on the selected another fire point.

18. The method of claim 15, comprising execution of the software product by the computing hardware to:

detect a usage of the selected flash fire device; and

levy a cost of usage of the selected flash fire device, wherein the cost of usage varies for each usage of the selected flash fire device.

19. The method of claim 18, comprising execution of the software product by the computing hardware to increase the cost of usage for each firing of the selected flash fire device.

20. The method of claim 19, comprising execution of the software product by the computing hardware to the increase the cost of usage after the flash fire device has been fired more than a predefined number of times.

21. The method of claim 15, comprising execution of the software product by the computing hardware to:

27

render a second view of the map on the graphical user interface, the second view of the map comprising a display of one or more user-owned territories and one or more other enemy territories;

enable a selection of an other enemy territory from the one or more enemy territories to be attacked. 5

22. The method of claim **21**, wherein the second view of the map comprises one or more visible areas and one or more at least partially hidden areas, and wherein the method comprises execution of the software product by the computing hardware to: 10

provide a rendering of a map resource object on the graphical user interface;

detect a selection of the rendered map resource object; and

render a third view of the map on the graphical user interface, wherein a partially hidden area from the one or more partially hidden areas of the second view of the map is visible on the third view of the map. 15

23. The method of claim **22**, comprising execution of the software product by the computing hardware to enable the partially hidden area to become visible upon detection of a selection of an upgrade option for the selected map resource object. 20

28

24. The method of claim **22**, comprising execution of the software product by the computing hardware to:

provide a graphical rendering of a radar device on the graphical user interface as the selected map resource

object, the radar device having a first functionality, render a selectable upgrade option on the graphical user

interface;

detect a selection of the selectable upgrade option; and

upgrade a functionality of the radar device to a second functionality, based upon the detection of the selectable upgrade option, wherein the partially hidden area is made visible when the functionality of the radar device is upgraded to the second functionality.

25. The method of claim **24**, comprising execution of the software product by the computing hardware to levy a cost of usage of the selected map resource object.

26. The software product stored on non-transitory machine-readable data storage media, wherein the software product, when executed by the computing hardware of an electronic device, implements the method of claim **15**.

* * * * *